

EAST COAST RAILWAY
WALTAIR DIVISION

No.WTF/5/SWR/PVP

Date of issue:

Date brought into force:

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STATION WORKING RULES OF PARVATIPURAM STATION
PANEL INTERLOCKING (BROAD GAUGE)

NOTE: The Station Working Rules must be read in conjunction with General and Subsidiary Rules, Block Working Manual and Operating Manual. These rules do not in any way supersede any rules in the above rule books.

1.0 STATION WORKING RULES DIAGRAM:

- i) Station Working Rule Diagram No. : SI/WRD/23018 ALT 'M'
ii) Signal Interlocking Plan : SI/23018 ALT 'M'

2.0 a) GENERAL (LOCATION):

i)	Name of the Station	:	PARVATIPURAM
ii)	Class of Station	:	'B' Class
iii)	Section	:	Vizianagram-Raipur
iv)	Double/Single line	:	Double Line
v)	Electrified/non electrified	:	Electrified
vi)	Guage BG/MG/NG	:	BG
vii)	Railway	:	East Coast Railway
viii)	Route	:	'D' Special
ix)	Situated at KM	:	388/37-39(UP), 388/38-40(DN)
x)	From	:	Raipur
xi)	No. of Cabins	:	Centrally Operated Composite miniature domino type full panel

2.1 DESCRIPTION OF STATION:

Parvatipuram (Code-PVP) is a 'B' Class Station on Raipur – Vizianagram Double line electrified (BG) section of East Coast Railway on 'D' Special. It is situated at KM 388/37-39(UP), 388/38-40(DN) from Raipur provided with Centrally Operated Panel Interlocking.

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DSTE/P/VSKP

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DOM/WAT

2.2 **BLOCK STATIONS ON EITHER SIDE AND THEIR DISTANCES & OUT LYING SIDINGS:**

a **BLOCK STATIONS ON EITHER SIDE AND THEIR DISTANCE:**

Sl no	Adjacent Block-section	Distance	Direction
1	GUMADA (GMDA)	13.3 km	Raipur end
2	SITANAGARAM (SNM)	12.80 km	VZM end

b. Provision of IBS:

IBH signal is provided between GMDA & PVP stations on both UP & DN lines at Km: 383.700 & Km: 383.138 respectively.

IBH signal is provided between PVP & SNM stations on both UP & DN lines at Km: 394.330 & Km: 393.670 respectively. Details of working of IBH are given in appendix –‘F’.

c Automatic signal: Nil

d DK station/Outlaying sidings: Nil

e Passenger halt : Nil

2.3 **BLOCK SECTION LIMITS ON EITHER SIDE OF THE STATION ON DIERENT DIRECTIONS:**

	Between Station	The Point from which the block section	The Point at which block section ends.
1.	PVP-SNM DN Line	a) From DN Advance starter No.14 of SNM. b) From DN IB Home signal no. 14 of PVP.	a) To a point 400M beyond DN IB Home signal no. 16 of SNM at km 393.670. b) Up to BSLB of GMDA Station.
2.	PVP-SNM UP Line	a) Commences at UP Adv Starter 11 of PVP. b) From UP IB Home signal no. 13 of PVP.	a) To a point 400M beyond UP IB Home signal no.13 of PVP at km 394.330. b) Up to BSLB of PVP Station
3.	PVP-GMDA DN Line	a) From DN Advance starter No.12 of PVP. b) From DN IB Home signal no. 14 of PVP.	a) To a point 400M beyond DN IB Home signal no. 14 of PVP at km 383.138. b) Up to BSLB of GMDA Station.
4.	PVP-GMDA UP Line	a) From UP Advance starter No 11 of GMDA. b) From UP IB Home signal no. 13 of GMDA.	a) To a point 400M beyond UP IB Home signal no.13 of GMDA at km 383.700. b) Up to the first facing point no.17A of PVP Station.

2.4 GRADIENTS.

Towards SITANAGARA M on Up & Dn. lines	Chainage in Mtrs.		Stretch in Mtrs.	Gradient
	From	To		
All Lines	000.000	17.20	17.20	1 in 580 Raising
UP & DN Line	17.20	563.20	546.00	1 in 1670 Raising
UP & DN Line	563.20	717.20	154.00	1 in 313 Falling
UP & DN Line	717.20	1317.20	600.00	1 in 250 Falling
UP & DN Line	1317.20	1767.00	450.00	Level
UP & DN Line	1767.00	2317.20	550.00	1 in 245 Raising
UP & DN Line	2317.20	2667.20	350.00	Level
UP & DN Line	2667.20	Into section	--	1 in 150 raising
All Lines	000.000	457.09	457.09	1 in 180 Falling
UP & DN Line	457.09	825.51	368.42	1 in 400 Falling
UP & DN Line	825.51	855.51	29.60	1in 1000 Raising
UP & DN Line	855.51	1060.80	205.29	Level
UP & DN Line	1060.80	1410.97	350.17	1 in 275 Raising
UP & DN Line	1410.97	1560.22	159.25	Level
UP & DN Line	1560.22	2172.95	612.73	1 in 190 Falling
UP & DN Line	2172.95	2950.80	778.30	Level
UP & DN Line	2950.80	Into section	--	1 in 250 Raising

IBS ZONE:

i) TOWARDS PVP END (UP LINE):

From km	To km	Stretch	Gradient
From section	379.588	---	Level
379.588	380.345	420M	1 in 400 Falling.
380.345	381.006	700M	Level
381.006	382.486	1350M	1 in 166 Raising
382.486	382.768	170M	Level
382.768	382.857	89M	Level
382.857	383.467	610M	1 in 500 Raising
383.467	383.700	233M	Level
383.700	384.179	479M	1 in 125 Falling
384.179	385.602	1423M	Level
385.602	Into section	---	1 in 200 Falling

ii) TOWARDS GMDA END (DN LINE):

From km	To km	Stretch	Gradient
From section	385.484	---	1 in 200 Raising
385.484	383.917	821M	Level
383.917	383.717	687M	1 in 150 falling
383.717	383.442	1223M	1 in 400 falling

383.442	382.844	275M	1 in 700 Raising
382.844	382.742	102M	1 in 630 Raising
382.742	382.568	174M	Level
382.568	381.943	625M	1 in 300 falling
381.943	381.001	943M	1 in 250 Raising
381.001	380.271	730M	1 in 165 Raising
380.271	Into section	---	1 in 440 falling

2.5 **LAY OUT:**

- i) The Station is provided with four running lines and two non-running line.

S N	Name of the line	Electrified/ Non Electrified
a)	Line no. 1 (Common Loop).	Electrified
b)	Line no. 2 (DN Main).	Electrified
c)	Line no. 3 (UP Main).	Electrified
d)	Line no. 4 (UP Loop).	Electrified

- ii) A low level passenger platform of 579.80 M X 10.70 M is provided for line no.1
- ii) A low level passenger platform of 600 M X 7.315 M is also provided on UP Loop.

2.5.1 **RUNNING LINES:**

The station is provided with four running lines i.e Common Loop [Line No.1], DN main [LineNo.2], UP main line [Line No.3], UP Loop [Line No.4].

DIRECTION OF MOVEMENT:

The trains coming from Raipur end proceeding to Vizianagaram are UP trains. Trains coming from Vizianagaram end proceeding towards Raipur are DN trains.

HOLDING CAPACITIES OF LINES:

Line No.1 [Common Loop]	CSL-787 Meters (STR TO STR)
Line No.2 [DN Main]	CSL-815 Meters (STR TO SB)
Line No.3 [UP Main]	CSL-750 Meters (STR TO SB)
Line No.4 [UP Loop]	CSL-729 Meters (STR TO SB)

2.5.2 **NON-RUNNING LINES AND THEIR CAPACITY:**

Nil

2.5.3 **ANY SPECIAL FEATURE IN THE LAYOUT**

Nil

2.6 **LEVEL CROSSINGS:**

The following are the details of four manned level crossing gates connected with magneto telephone communication with this station in either end.

SN	LC Gate No. with Classification and Dept	Between stations with Location Km.	Type	Normal position	Whether Interlocked	Provision of Telephone
1	RV-288 “C” Class Engineering	PVP-SNM 394/11-12	Lifting barrier	close to Road traffic	Non-Interlocked	Provided
2	RV-286 “C” Class Engineering	PVP-SNM 393/13-15(UP) 393/14-16(DN)	Lifting barrier	Close to Road traffic	Non-Interlocked	Provided
3	RV-284 “C” Class Engineering	PVP-SNM 391/3-4	Lifting barrier	Close to Road traffic	Non-Interlocked	Provided
4	RV-283 “Spl” Class Traffic	PVP-SNM 389/13-15(UP) 389/14-16(DN)	Lifting barrier	Open to Road traffic	Interlocked	Provided
5	RV-281 “Spl” Class Engineering	PVP-GMDA 387/15-17(UP) 387/16-18(DN)	Lifting barrier	Open to Road traffic	Interlocked	Provided
6	RV-279 “C” Class Engineering	PVP-GMDA 383/13-14	Lifting barrier	Close to Road traffic	Non-Interlocked	Provided
7	RV-278 “C” Class Engineering	PVP-GMDA 382/23-25 (UP) 382/24-26 (DN)	Lifting barrier	Open to Road traffic	Interlocked	Provided

The detailed working of the L.C. Gates along with the particulars are mentioned in Appendix ‘A’.

3.0 SYSTEM AND MEANS OF WORKING:

- i) System of working : Absolute Block System
- ii) Block Instrument : ‘SGE’ type Double line block instrument are provided for block sections, PVP-GMDA & PVP-SNM
- iii) Co-operative/Non Co-operative : Non Co-operative
- iv) Custody of keys of Block instrument : Block instrument is provided with double locking. One key will be with SM and another key will be with S&T maintainer.

4.0 SYSTEM OF SIGNALLING AND INTERLOCKING:

4.1

a)	Standard of Interlocking	The Station is provided with Standard –III Interlocking.
b)	Type of Signals	Multiple Aspect Colour Light Signals. The aspects & indication of the MACLS is governed by GR3.08(4)(b)
C)	The Station is provided with panel interlocking	The points & signals are operated from this panel
d)	Method of operation	A centrally operated panel is installed in SM’s office

e) Both Up and Down Main lines Common loop & UP loop are provided with Berthing Track circuits as

- UP main line: UMT1, UMT2, UMT3
- DN main line: DMT 1, DMT 2, DMT 3
- Common loop: L1T1, L1 T2 & L1 T3
- UP loop: L4T1, L4T2, and L4T3.
- Point zone track circuits are also provided as 18AT,18BT,20AT, 20BT, 22AT, 22BT, 17AT, 17BT, 19AT, 19BT, 21T.
- 1AT and 2AT are the approach track circuits for up and down calling on signals respectively
- UP Block release track circuits as 1T, 1T1
- DN Block release track circuits as 2T, 2T1
- UP Advance starter approach and replacement track circuits as 11AT & 11T respectively.
- DN Advance starter approach and replacement track circuits as 12AT & 12T respectively.
- 3T1 & 3T2 Track circuits are provided for control and replacement of gate home signal 3GF of “**Spl**” Class L.C. Gate at KM 387/15-17(UP) 387/16-18(DN).

The demarcation of track circuit portion is indicated on operating cum indication panel. Only when any running line is clear and initiated a white strip of lights illuminated on the panel throughout the line so initiated. However when running line occupied by any vehicle/Train a RED strip of lights illuminate throughout the berthing line till such time it is cleared.

f) **FAILURE OF TRACK CIRCUITS:**

In the event of failure of track circuits before permitting any movement on such track circuited portion SS/SM on duty shall ensure that portion of track is clear by sending TPM/TP on duty or shall personally verify when feasible. In the event when TPM is sent to this effect the clearance shall be ensured from the TPM supported by private number.

g) **AXLE COUNTER:**

For section GMDA-PVP (UP line):

A pair of digital axle counter is provided between PVP-GMDA on UP line, one just beyond UP advanced starter No.13 of GMDA and another one just beyond 400mts from the UP IB Home signal No. 13 of GMDA for proving IB section and another pair of digital axle counter near UP IB home signal no. 13 of GMDA and another one just beyond first facing point no. 17A of PVP station for proving LVV section between GMDA-PVP.

For section PVP-GMDA (DN line):

A pair of digital axle counter is provided between **PVP-GMDA** on DN line, one just beyond DN advanced starter No.12 of PVP and another one just

beyond 400mts from the DN IB Home signal No. 14 of PVP for proving IB section and another pair of digital axle counter near DN IB home signal no. 14 of PVP and another one just near BSLB of GMDA station for proving LVV section between PVP-GMDA.

For section SNM-PVP (UP line):

A pair of digital axle counter is provided between PVP-SNM on UP line, one just beyond UP advanced starter No.11 of PVP and another one just beyond 400mts from the UP IB Home signal No. 13 of PVP for proving IB section and another pair of digital axle counter near UP IB home signal no. 13 of PVP and another one just beyond first facing point no. 17A of SNM station for proving LVV section between GMDA-PVP.

For section PVP-SNM (DN line):

A pair of digital axle counter is provided between **PVP-SNM** on DN line, one just beyond DN advanced starter No.14 of SNM and another one just beyond 400mts from the DN IB Home signal No. 16 of SNM for proving IB section and another pair of digital axle counter near DN IB home signal no. 16 of SNM and another one just near BSLB of PVP station for proving LVV section between PVP-SNM.

h) **CRANK HANDLE:**

When any Motor point has failed to operate from panel, it is inevitable to operate by means of crank handle. To achieve this these Crank handles accessibility keys are provided at the respective ends in the available gate lodges near to points zones for manual setting with a telephone facility.

The crank handles accessible keys at the respective ends of the yard in the available gate lodges are released by the operation of control push button by the on duty SS/SM. Refer to Appendix 'B' regarding setting of points by crank handle.

i) **CALLING ON SIGNALS:**

Miniature calling on signals are provided below UP & DN Home signals in terms of GR 3.13[6], [B]. Calling on signal is taken off for reception of trains when the Home signal above it cannot be taken off due to failure or any other reason or for admission of train on to a stocked line.

[Details of Signaling and Interlocking given in Appendix-'B'].

4.2 CUSTODY OF RELAY ROOM KEY AND PROCEDURE FOR ITS HANDING OVER AND TAKING OVER BETWEEN SS/SM AND S&T MAINTENANCE STAFF:

Relay room is provided with two independent locks. The key of one lock shall be in the personnel custody of Station Master on duty and the key of other lock shall be in the custody of S&T Maintainer. In the event of necessity such as for attending failure, or regular maintenance, on being requisitioned by S&T

maintainer, SM shall hand over the key to the Maintainer with proper acknowledgement in the Relay room key register. On completion of the work, maintainer shall lock the relay room by using both the keys separately and designated key should be handed over to the Station Master. The details of the transaction is to be properly recorded in the Relay room key register maintained at the station and duly signed by the SM and Maintainer respectively vide OM 2015 para no. 13.16

4.3 (A) POWER SUPPLY:

- i) CLS Auto Change Over panel with rotary change over switch is provided in the SM's room with the three power supplies viz UP AT, DN AT and local power supply for changing the switch to the required supply position. Luminous indicators are provided above the circuit breaker for each supply to indicate the availability of the supplies.
- ii) Normally the rotary switch will be kept towards UP AT or DN AT position. Whenever the power block is to be given on the line, the on duty SM must ascertain the power is available on the other AT e.g if power block is to be given on the UP line, DN AT must be available and vice versa.
- iii) During the non-availability of both the AT supplies SM on duty shall keep the rotary change over switch towards the local supply to feed available local supply to the Installation.
- iv) In case of failure of one of the AT supply without any power block, on duty SM has to check whether the Miniature Circuit Breaker has tripped. (Three Miniature Circuit Breakers are provided in the changeover switch board, one for each supply and their normal position is UP and when tripped, it goes to DN). In case of failure of both AT supplies, the local supplies shall be utilized by operating the switch. If the Miniature Circuit Breaker is tripping, even after resetting, no attempts shall be made to hold it by any other means and a message shall be given to the AEE/GEN and CTFO/GEN for prompt rectification.
- v) For IPS system that provides to PI.
- vi) There is a remote monitoring ASM box provided at the station to monitor the health of IPS.

(B) REMOTE MONITORING ASM BOX:

Remote monitoring ASM box gives alarm to the ASM for the following fault conditions:-

- (a) 50% DOD (Depth of Discharge) of Battery. In this condition Audio/Visual alarm comes which can be acknowledged with audio cut off.
- (b) 60% DOD (Depth of Discharge), which warns for emergency. The Alarm for this condition is same as for condition 1.
- (c) 70% DOD (Depth of Discharge), which signals system, shut down. In this condition Signal feed cut off and all DC-DC converters continue working. Audio alarm will continue till power supply restored.
- (d) Any of the Module fails, which calls for "Call S&T".
- (e) Whenever there is a failure of power supply in one AT, the SM shall take prompt action to inform to all concerned for the rectification. The SM

himself, during his daily checks, shall test the availability of power supply on both AT's and make an entry in station diary duly initiating action for rectification of failure, if any.

5.0 TELECOMMUNICATION:

- i) Telephone attached to SGE Type lock and block instrument connected to the adjacent stations on either side.
- ii) Magneto phone is provided between Station and L.C gates RV-288, RV-286, RV-284, RV-283, RV-281, RV-279 & RV-278.
- iii) Magneto Phone is provided for sections PVP-SNM and PVP- GMDA.
- iv) Railway Auto Tele phone.
- v) BSNL Telephone
- vi) The station is connected to VZM-SPRD 'B' cabin control phone.
- vii) Provision of Traction Power Control & Traction Loco Control of section VSKP-SPRD "B" Cabin.

6.0 SYSTEM OF TRAIN WORKING:

Movement of trains is regulated by the Section Controller on duty whose orders must be carried out provided they do not contravene any G&SR, BWM, OM, SWR or any other safe working principles. In the event of suspension of control working, the SS/SM on duty shall work independently in consultation with the SS/SM of the adjacent block station and shall be responsible for reception and dispatch of train. He shall ensure that preference is given to important trains and at the same time no undue detention occurs to other train.

6.1 DUTIES OF TRAIN WORKING STAFF:

The duties of train working staff are mentioned in detail in Appendix-'D'.

6.1.1 TRAIN WORKING STAFF & COMPLEMENT OF STAFF

The following is the Complement of operating Staff at the station.

SS in charge	1
SM/SS	1
Traffic points man	1
Traffic gate keeper	1

Note: Staff deployed at the station shall follow the rosters issued by Sr.DPO/WAT from time to time.

6.1.2 RESPONSIBILITY FOR ASCERTAINING CLEARANCE OF THE LINES AND THE ZONES OF RESPONSIBILITY:

The SS/SM on duty is responsible to nominate clear line that is free from all obstructions from the Home signal to the Starter signal inclusive of adequate distance beyond it for admission of trains vide 3.40(1)(a), 3.40(3)(b).

The clearance of the running line for the reception of the train is to be verified by the SS/SM on duty by verifying luminous indication provided on the panel board.

6.1.3 ASSURENCE OF STAFF IN THE ASSURENCE REGISTER:

All staff who are in any way connected with trains passing duties, shall before being allowed to take-up independent charge of their duties and after absence of 15(Fifteen) consecutive days or more, and if there is any change made in the Station Working Rules, shall sign in the Assurance Register as a token of their having gone through and understood clearly the rules in connection with their duties vide SR 5.01.02.

The SMR in-charge of the station shall be personally responsible for maintenance of Assurance Register and must not allow any person connected with train passing duties to work independently unless he has given his assurance as per SR. 5.01.02.

6.2 CONDITIONS FOR GRANTING LINE CLEAR:

The Line shall not be considered clear and line clear shall not be given unless:

- a) The whole of the last preceding train has arrived complete.
- b) The necessary signals have been put back to ON behind the said train.
- c) For UP train line is clear upto first facing point no. 17A and LC gate RV-278 is closed for road traffic.
- d) For DN train line is clear upto BSLB and LC gate RV-286 and RV 288 are closed for road traffic.

The conditions laid down in GR 8.01(1)(a) & (b), 8.01(2)(b) & 8.03 (1)(a), (b) and (c)(ii), G.R.14.10, BWM 5.08 & 5.09(2) shall be complied with before the line is considered 'Clear' and the 'Line 'Clear' is granted.

Note: If the light of the reception signal is found not lit up, line clear shall not be granted for train till such time it is ensured that the concerned loco pilot is notified of the fact in writing by the SS/SM of the station to which such line clear is to be granted vide GR3.49[4].

6.2.1 ANY SPECIAL CONDITIONS TO BE OBSERVED WHILE RECEIVING OR DESPACHTING A TRAIN: **NIL**

6.2.1.1 SETTING OF POINTS AGAINST BLOCKED LINE

When a running line is blocked by stabled load wagon, vehicle or by a train which is to cross or give precedence to another train or immediately after the arrival of a train at the station etc., the points in rear should be immediately set against the blocked line except when shunting or any other movement is required to be done immediately in that direction on that line vide GR 3.38(2). Lever/block collars placed on the concerned lever/button of the blocked line vide SR 5.04.01 and SR 3.51.06 shall be followed.

Safety point alarm:

1. On complete arrival of a train at the station, the SM has to set the points immediately against the occupied line.
2. In case of SM forgets to alter the points, after a time lag of 02 minutes, an audible buzzer will be heard from this instrument along with the 'RED' indication of the line on which The train has arrived.
3. The SM shall then press 'ACK' button to mute the buzzer, and immediately set the required points against the line on which the train has arrived.

4. On setting the points against the occupied line, the RED indication will disappear.

If all the lines of a station happen to be blocked, when line clear has been granted to a train, the points should be set for the line occupied by a stabled load or a goods train in that order so that, in case of mishap, the chance of casualties are minimized [Refer SR.3.51.06 (b)]. In case of all the lines are occupied by Coaching train, points should be set for a loop line to negotiate with the speed of incoming train would be reduced which in turn, would minimize the consequences/causalities.

6.2.1.2 RECEPTION OF TRAIN ON BLOCKED LINE:

In case of reception of a train on obstructed line the SM shall send the written permission in the for T/509 referred in 5.09.01[a] and shall enclose the reason for such admission, the line number and the nature of obstruction on that in setting and locking of points shall be done as per SR 3.69.03. A stop hand signal shall be exhibited by SM personally at a distance of not less than 45 M from the point of obstruction to indicate the loco pilot as to when the train shall be brought to a stand.

However the SM, whenever possible, shall intimate the loco pilot through the SM of station in rear and also by taking off calling ON signal.[Refer 5.09[1] & [2].

6.2.1.3 RECEPTION OF TRAIN ON NON-SIGNALLED LINE:

Reception of trains on a non signaled line is governed by GR 5.10 and SR 5.10.01.

6.2.1.4 DISPATCH OF TRAIN FROM NON-SIGNALLED LINE:

Dispatch of trains from non signaled line is governed by GR.5.11 and SR 5.11.1

6.2.1.5 DISPATCH OF TRAIN FROM LINE PROVIDED WITH COMMON STARTER SIGNAL:

To dispatch a train from common loop GR 5.12 and SR 5.12.1 shall be observed.

6.2.1.6 ANY OTHER SPECIAL CONDITIONS SHOULD BE MENTIONED GIVING REFERENCE TO THE G & SR:

- a) **SPECIAL RESTRICTIONS:** Nil
- b) **SPECIAL INSTRUCTIONS:** Nil

6.3 CONDITIONS FOR TAKING OFF APPROACH SIGNALS:

The conditions for taking off approach signals shall be governed by GR 3.40(1)(a), 3.40(2)(a), 3.40(3)(b) and relevant SRs thereto.

6.3.1 RESPONSIBILITY OF SS/SM FOR RESTORATION OF SIGNALS TO ON:

SS/SM shall ensure that the signal is gone back to 'ON' after passage of a train as per GR 3.36 [2][b].

UP & DN Home, Starters, Advance Starters signals will go back ON position after occupation of particular track circuits. SS/SM on duty shall send TRAIN OUT OF BLOCK SECTION report to the station in rear in terms of GR 14.01 and SR 4.17.01.

6.4 **SIMULTANEOUS RECEPTION / DESPATCH, CROSSING & RECEDENCE OF TRAINS:**

The interlocking at the Station permits the following simultaneous reception and dispatch of trains:

Reception of an Up train on line no. 1	And	Dispatch of another UP train from line No.3(UP main) or from line No. 4
Reception of a DN train on Common loop(Line no.1)	And	Dispatch of another DN train from line No.2.
Reception of a UP train on line no.4[UP loop]	And	Dispatch of another UP train from line no.1(Common loop) or from line No.3(UP Main)

RECEPTION OF TRAINS:

Reception of trains is governed by rules laid down in GR 3.36, 3.38, 3.40, 3.49 & 4.17 and SRs thereto & SRs 3.42.02 [iv] & 3.42.03 and other relevant provisions of G&SR, BWM, OM and SWR shall be followed.

‘Spl’ Class Traffic Level Crossing gate at KM {389/13-15(UP),389/14-16(DN)} at SNM end of the yard and ‘Spl’ Class Engg Level Crossing gate at KM {387/15-17(UP),387/16-18(DN)} at GMDA end of the yard are so interlocked with station stop signal that unless the gate is closed locked and key is transmitted to SS/SM on duty, the signals cannot be taken off for UP and DN trains.

PUTTING BACK OF SIGNALS:

UP & DN Home, Starters, Advance Starters signals will go back ON position after occupation of particular track circuits. SM on duty shall send TRAIN OUT OF BLOCK SECTION report to the station in rear in terms of GR 14.01 and SR 4.17.01.

CONDITIONS FOR TAKING OFF APPROACH SIGNALS:

The conditions for taking off approach signals shall be governed by GR 3.40(1) (a), 3.40(2) (a), 3.40(3)(b) and relevant SRs thereto.

ADEQUATE DISTANCES(SIGNAL OVER LAP)

To take off the Home Signals for admission of a train, the adequate distance [Signal Overlap] as mentioned below shall be kept clear in terms of GR 3.40 (1) (a) and SR thereto.

CLEARANCE OF ADEQUATE DISTANCE

LINE No.	For Up Trains		For Down Trains	
	From	To	From	To
Line no. 1 (Common Loop)	UP Starter signal no. 7	End of Sand hump or up to Adv Str.No.11.	DN Str Signal No.6	End of Sand hump or DN Adv Str. Signal No.12
Line no. 2 (DN Main)	--	--	DN Str Signal	DN Adv Str. Signal No.12
Line no. 3 (UP. Main)	UP Str. Signal No.9	Up Adv. Str. Signal No:11	--	--
Line no. 4 (UP Loop)	UP Starter signal No. 5	End of sand hump or Up Adv.Str. Signal No.11	--	--

COMPLETE ARRIVAL OF TRAINS

For section GMDA-PVP (UP line):

A pair of digital axle counter is provided between PVP-GMDA on UP line, one just beyond UP advanced starter No.13 of GMDA and another one just beyond 400mts from the UP IB Home signal No. 13 of GMDA for proving IB section and another pair of digital axle counter near UP IB home signal no. 13 of GMDA and another one just beyond first facing point no. 17A of PVP station for proving LVV section between GMDA-PVP.

For section PVP-GMDA (DN line):

A pair of digital axle counter is provided between **PVP-GMDA** on DN line, one just beyond DN advanced starter No.12 of PVP and another one just beyond 400mts from the DN IB Home signal No. 14 of PVP for proving IB section and another pair of digital axle counter near DN IB home signal no. 14 of PVP and another one just near BSLB of GMDA station for proving LVV section between PVP-GMDA.

For section SNM-PVP (UP line):

A pair of digital axle counter is provided between PVP-SNM on UP line, one just beyond UP advanced starter No.11 of PVP and another one just beyond 400mts from the UP IB Home signal No. 13 of PVP for proving IB section and another pair of digital axle counter near UP IB home signal no. 13 of PVP and another one just beyond first facing point no. 17A of SNM station for proving LVV section between GMDA-PVP.

For section PVP-SNM (DN line):

A pair of digital axle counter is provided between **PVP-SNM** on DN line, one just beyond DN advanced starter No.14 of SNM and another one just beyond 400mts from the DN IB Home signal No. 16 of SNM for proving IB section and another pair of digital axle counter near DN IB home signal no. 16 of SNM and another one just near BSLB of PVP station for proving LVV section between PVP-SNM.

The entire block section between PVP-GMDA and PVP-SNM on both Up and Down Lines are monitored by axle counter system and the position of the block section whether 'Occupied' or 'Clear' is indicated on panel at SM's office. As soon as train enters in to that block section the RED indication appears on panel. After whole train clears the block section GREEN indication appears on the panel. This confirms the complete arrival of train and the SM on duty shall give 'Train out of Block Section' report on seeing the section clear indication GREEN on the panel.

In case of failure of Axle counter the SM on duty shall obtain Complete Arrival Certificate from the guard of the train in the Complete Arrival Register (T/1410) maintained at the station for stopping train. For through passing train the SM on duty shall satisfy himself the complete arrival of the train by verification of the Last Vehicle Indicator vide SR 4.16.05 that the train arrived complete.

In case a train passes incomplete, action shall be taken as per SR.4.17.02, he "Train out of Block Section" report shall be withheld to the station in rear until Complete

Arrival Certificate is received from the station in advance supported by a private number. Train passing on adjacent line shall be stopped and Guard and Loco pilot shall be issued with caution Order to proceed cautiously and stop short of any obstruction as per SR. 4.17.03. On occasions when motor trolley follows a train the points shall not be operated until the following motor trolley is admitted on the same line. In the event of motor trolley is delayed in the section the SM on duty shall take action in terms of SR.15.25.03(b)(vi).

DISPATCH OF TRAINS:

Dispatch of trains is governed by provision of GR 3.42 and SR thereto, SR 3.36.04 SR.3.42.02 (IV), SR 3.42.03, SR 3.42.04 and BWM 2.07(5) (a), (e), (f)&(g) and other relevant provision of G & SR, BWM and SWR.

The SS/SM on duty, after obtaining line clear for the concerned train, shall first suspend all non-isolated shunting and shall withdraw the shunting authority issued earlier and kept in his possession. SS/SM on duty shall also ensure closing and locking of L.C Gate Non interlocked from Gateman supported by private number and also ensure the closure of interlocked L.C gate and get the key transmitted from the gate man.

TRAIN ENTERING BLOCK SECTION:

The SS/SM on duty after verifying that the train has passed past the advanced starter signals (Both physically & through Panel indications) shall send the TRAIN ENTERING BLOCK SECTION Signals vide BWM 2.07.5(a).

ISSUE OF CAUTION ORDERS:

Whenever in consequence of the line being under repairs or for any other reasons special precautions are necessary a Caution Order detailing the Kilometers and Speed at which train should run with reasons for taking such precautions shall be handed over to the Guard and loco pilot in terms of GR 4.09 and SR thereto.

TRAINS RUNNING THROUGH

- i) In addition to procedure detailed in paras 'Reception and Dispatch' of trains, rules laid down in GR 4.17, 4.42, 3.36, 3.42 with relevant SRs shall be followed.
- ii) Reception and dispatch signals shall be taken "OFF" for a through train as per the sequence given below vide SR 3.42.02(a)(iv), SR 3.42.03 and SR 3.42.04.
- iii) In every case in which trains are permitted to run through on non-isolated line, all shunting shall be stopped and no vehicle unattached to an engine or not properly secured in accordance with rule GR 5.23 may be kept standing on a connected line which is not isolated from through line.
- iv) The SS/SM shall see that the last vehicle of every train passing through his station is provided with a tail board or a tail lamp or such other device in accordance with the provision of the GR 4.16 and SR 4.17.01(a).

6.8 WORKING IN CASE OF FAILURE:

a) Track Circuit/ Axle Counter's

In case of failure of track circuit, the clearance of the concerned line should be concerned line should be ensured physically before a train is piloted.

If the axle counter fails between the block section, resulting procedure will be adopted as per para of SWR (Appendix-'B'). if axle counter indication does not appear 'Green' and continues to show 'Red' condition after resetting the concerned block section shall be suspend & failure indication to be given to Sectional Signal Maintainer / JE/SE/Signal for rectification.

b) Block Instruments

In the event of partial/ total failure of block instrument the concerned block instrument shall be suspend till is rectification & trains shall work as per SR 6.02.03 & 6.02.06).

During the period of time the authority will be T/369(b) with identification no & private no. issued from the station in advance written both in figure of words.

c) DEFECTIVE SIGNALS:

When Signals become defective, the procedure laid down in GR 3.68 to 3.71 and SRs thereto shall be followed. A Signal in the OFF position is the final indication that the points are correctly set and locked for the route for which it applies and if it is found impossible to take OFF a signal, the setting of points on the route to which it applies shall be inspected by the SS/SM before the signal is declared as defective vide SR 3.68.01(c) In case of disconnection of signaling and interlocking gears for repairs and maintenance, procedure laid down in GR 3.51, 3.68 and relevant SRs shall be followed.

In the event of signal showing no lights, and if signal lights cannot be kept burning, SS/SM on duty shall before giving line clear' initiate action in accordance with the procedure prescribed in GR 3.49(4).

d) **DEFECTIVE INTERLOCKING:**

When interlocking becomes defective, the SS/SM on duty shall be responsible and personally supervise the setting, clamping and padlocking of all required facing and trailing points for admission of a trains, vide 3.69.03(c).

e) **INSPECTION OF POINTS BEFORE DECLARING THEM DEFECTIVE:**

However, before declaring a signal is defective, the setting of the points on the route to which it applies shall be inspected by the SS/SM irrespective of the position of the points in terms of SR 3.68.01[c] and GR 3.68, 3.70, with relevant SRs and SR.3.77.01 (b) shall be followed.

f) **DEFECTIVE OR DAMAGED POINTS:**

When points become defective, the signals controlling these points shall be considered as defective and vice-versa and action to be taken as prescribed under GR 3.77 relevant SR's thereto. The SS/SM is the in-charge of S&T installations at his station and shall ensure efficient discharge of the duties devolving on the S&T maintenance staff. To this extent he shall satisfy himself that both **ESM/ MSM** who visit the station have done proper oiling, cleaning and adjustments as necessary of the signaling and interlocking apparatus and after ensuring this, the SS/SM shall sign the diary indicating the conditions of the gear as stipulated in the maintainer's diary. The SS/SM is also responsible for testing of Points and signals as stipulated in SR 5.01.03.

PILOTING OF TRAINS-INTO STATION YARD

- i) Piloting of the trains into the station yard is governed by SRs 3.69.02 and 3.69.03.SWR of PARVATIPURAM
- ii) Whenever Home signal has become defective the calling 'ON' signal below it shall be taken off in items of SR 3.69.02
- iii) Whenever Home signal and the calling 'ON' signal below it have become defective, the SS/SM On Duty shall advise the station in rear to issue written authority to this effect and the procedure laid down in SR 3.69.02 (a) shall be followed.

PILOTING OF TRAINS -OUT OF STATION YARD:

Piloting of trains out of the Station yards is governed by GR 3.70 and SRs thereto.

NOTE: The responsibility for Correct setting and locking of points as also its clearance of line in respect of all trains shall devolve personally on the SM on duty according to SR 3.69.03 (c).

6.9 PROVISION FOR WORKING OF TROLLIES/MOTOR TROLLIES /MATERIAL LORRIES:

Motor trolleys shall be worked as per GR 15.25 & SR thereto and BWM 5.11(2), 5.12, 5.13 and 5.14(2) (b) and Circulars & Orders issued from time to time. Material trolleys shall be worked as per GR 15.27 and SRs thereto and BWM 5.11(2), 5.13.

7.0 BLOCKING OF THE LINES:

Whenever a running line is blocked either by loose vehicles or by stabling train or by a train which is to cross or give precedence to another train, the points at either end should immediately be set against the blocked line except during shunting movement. 'Line Block' is to be activated on VDU by SS/SM on duty following procedures as laid down in para no. 6.2.2.

A clear remark in 'RED' ink shall be made immediately in the train signal register and a record shall be made in the Station Master's diary also. Stable load register is also to be maintained. The stable load or loose vehicles are to be secured to prevent rolling down of vehicles. [Refer SR 3.36.3(b), GR 5.23, SR 5.04.01(a) and SR 5.23.01(a)]

7.1 LOADING AND UNLOADING OF VEHICLES ON RUNNING LINES:

Except smalls, loading and unloading of vehicles on running line is prohibited unless permitted by DOM vide SR 5.19.01.

7.2 SECURING OF VEHICLES:

The rules laid down in GR 5.23, SR 5.23.01 and OM 7.08 shall be followed.

NOTE: Special care shall be taken to secure special type vehicles fitted with roller bearings while standing in siding or running lines vide SR 5.23.01(b).

7.3 DETACHING OF VEHICLES ON RUNNING LINES:

Detaching of vehicles on running lines is normally prohibited. Whenever any vehicle is detached on running lines under unavoidable circumstances such rolling stock shall be placed opposite to the Station Master's office as far as possible and shall be properly secured vide SR 5.23.01 and 5.19.01(d).

8.0 SHUNTING

The rules laid down in GR 3.46, 3.52 to 3.56, 5.13 to 5.23, 8.05(2) (3), 8.06 and 8.14, 8.15 (c) with relevant SRs and OM 7.01, 7.07 and 7.08 shall be observed. All shunt movement shall be supervised by Guard/SS/SM, point man on duty vide SR 5.13.03 as the case may be.

In the event of any non-signaled movement has taken place, the SS/SM. on duty shall ensure physical verification of the clearance of the crossover points.

i) CUSTODY OF KEYS AND PAD LOCKS DURING SUCH MOVEMENT:

The key of the pad locks of such points shall be in the personal custody of the operating official vested with this responsibility till such time movements are completed. The operating official vested with the responsibility of supervising the Non-signaled movement of the engine/train/vehicle must return the key along with pad locks to the SS/SM on duty, after completion of the said movement or alternatively when such a move is cancelled.

ii) AUTHORITY FOR SHUNTING OPERATIONS:

The SS/SM on duty shall issue written shunting authority on from T/806 to the Loco Pilot through guard of the train when the non signalled shunting is resorted to.

This memo shall be withdrawn whenever shunting is to be suspended for reception and dispatch of train if the line on which shunting is performed is not isolated. After shunting is completed, the order shall be collected from the Driver cancelled and pasted with the record foil as per SR 5.13.02.

Note:

Points both facing and trailing are to be clamped and padlocked for all non-signaled movements. Further it must be ensured that the Entrance and Exit track circuit are clear as also the intervening track of the cross over is clear of any obstruction and certified so by the operating official (who is responsible for shunting supervision) before the SS/SM on Duty resumes normal working either for reception or dispatch of trains in to the station yard or through the station yard.

iii) **NON-SIGNALLED MOVEMENTS:**

All signalled movements in the yard either of train or of an engine with or without vehicles shall be from one stop signal to the next stop signal or stop board and no half way movements are permitted and if such movements are unavoidable it should be considered as non-signaled move and precautionary measures should be taken such as clamping and pad locking of points on the route both interlocked and non-interlocked points including derailing switches according to SR 5.3.05 and 5.14.03.

8.1 SHUNTING IN FACE OF AN APPROACHING TRAIN:

STRICTLY PROHIBITED.

8.2 PROHIBITION OF SHUNTING ANY SPECIAL FEATURES IF ANY:

- a) Hand shunting/Fly shunting is prohibited at both ends of the yard.
- b) Shunting shall not permitted at South end of the yard unless the Engine is leading towards the falling gradient vide GR.5.20

8.3 SHUNTING ON SINGLE LINE:

Not applicable.

8.4 SHUNTING ON DOUBLE LINE:

- i) When the line clear has been given no shunting shall be permitted in the block section in rear Vide GR 8.06 (1).
- ii) Shunting or obstruction for any other purpose shall not be permitted in the block section in rear unless it is clear and is blocked back Vide GR 8.06(2) and BWM 5.15 [I] [b].
- iii) Shunting or obstruction for any other purpose shall not be permitted in the block section in advance unless it is clear and is blocked forward Vide GR 8.06(3) and

BWN 5,15[2][b].

8.5 SHUNTING IN THE SIDING TAKING OFF FROM THE STATION YARD:

While performing shunting in the sidings it should be authorized by issuing T/806 clearly mentioning the limits up to which shunting is permitted as also the lines, occupied in shunting. The relevant provisions of GR 5.14 and SR thereto shall be meticulously followed.

8.5.1 a) SHUNTING OUTSIDE STATION SECTION:-

- i) Shunting shall not be permitted in block section (i.e., in the block section in rear) unless it is clear and is blocked back.
- ii) Shunting shall not be permitted in block section in advance unless it is clear and is blocked forward.

b) SHUNTING OUTSIDE STATION SECTION :

- i) The line outside the station section and up-to the Home Signal shall not be obstructed unless a Railway servant specially appointed in his behalf by the SS/SM who is in-charge of the operations, and unless –
- ii) The block section into which the shunting is to take place is clear of an approaching train and all relevant and necessary signals are kept “ON” position.

c) SHUNTING WITHIN STATION SECTION :

If the necessary signals are kept at “ON”, shunting may be carried on within the station section vide GR 8.05[2].

9.0 ABNORMAL CONDITIONS:

a) i) THE RULES TO BE OBSERVED IN EVENT OF ABNORMAL CONDITIONS:

During partial interruption/failure of electrical communication instrument. In the event of partial interruption of communication the trains shall be worked in terms of SR 6.02.06.

ii) ISSUE OF THE BLOCK TICKET :

Rules and regulations for working trains on an obstructed line in case of obstruction or accident on the authority of block tickets (T/A 602) when communications are available shall be followed in accordance with the provisions of SR 6.02.05.

iii) TRAINS DELAYED IN BLOCK SECTION:

In the event of trains unusually delayed in the block section, the action shall be initiated as per GR 6.04 and SR thereto.

iv) FAILURE/PASSING OF INTERMEDIATE BLOCK STOP SIGNAL AT ON:

No IBS are provided.

v) **FAILURE OF AXLE COUNTER BLOCK/BPAC:**

In the event of failure of Axle counter[BPAC] between GMDA-KNRT and GMDA-PVP train shall not be allowed until complete arrival of preceding train is ascertained physically or ensured from the guard by obtaining certificate on train complete arrival register on form No;T/1410. (Resetting process is given in Appendix 'B').

b) **PROCEDURE FOR EMERGENCY OPERATION OF POINTS BY CRANK HANDLE:**

Crank handle accessible key is inter locked with the signaling and inter locking system at this station and the crank handle key which is normally locked up in the RKT instrument in the goomtys/crank handle locations at the both End of the yards can be taken out when the signals on the connected route are in normal position and the route is not locked for any reason.

Even when the route is locked the crank handle key can be extracted from the RKT through emergency operation by pressing the concerned crank handle button along with group Trans button concurrently.

When this operation is resorted, the crank handle 'Key in' indication(white) and locked indication (Red) both start flashing on panel. After 120 Seconds of flashing the locked indication (Red) disappears. Similarly such red indication appears at the crank handle location at site near corresponding RKT and then the crank handle accessible key can be taken out from the RKT at site, After key is extracted at site from the RKT, the key in indication (white) on panel, board will extinguish. After completion of work, crank handle key shall be restored to RKT which will be indicated by flashing key in (white) indication on panel board, which comes steady only after pressing of concerned crank handle button along with group release button concurrently.

c) **CERTIFICATION OF CLEARENCE OF TRACK BEFORE CALLING ON SIGNAL OPERATION IS INITIATED:**

Before taking off calling on signal the Clearance of the portion of the line on to which the train is to be admitted, is to be ensured by on duty SS/SM.

d) **REPORTING FAILURE OF POINTS, TRACK CIRCUIT/ AXLE COUNTER AND INTERLOCKING:**

- i) Whenever there is a failure of points, signals, track circuits/axle counter and interlocking gear at this station which includes level crossing gate if any etc, the failure report should be communicated by the SS/SM on duty through a memo to the maintainer and the SSE/SE/JE along with others as per GR 3.51.04, 3.68.04 and document all such transactions. Only after receipt of the written memo from the signal maintainer after rectification of the fault, SS/SM shall restore the normal working.
- ii) The entries in the failure register to be done with message to the section controller.

9.1 TOTAL FAILURE OF COMMUNICATIONS:

In the event of single line working on a double line section during total failure of communication the provisions laid down in SR 6.02.02 shall be followed.

During the total failure of communications on double line trains shall be worked in accordance with the provision of SR 6.02.03.

9.2 TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:

Temporary single line working on a Double line section.

- i) In the event of single line working being introduced when communications are available the provisions laid down in SR 6.02.01 shall be followed.
- ii) During partial interruption of communication the procedure detailed in SR 6.02.06 shall be followed.

9.3 DESPATCH OF TRAINS UNDER AUTHORITY TO PROCEED WITHOUT LINE CLEAR:

- i) During the total interruption of communications, while allowing the trains under authority to proceed without line clear the relevant provisions under SR 6.02.02 and SR 6.02.03 as the case may shall be followed.
- ii) The last stop signals shall not be taken “OFF” but an authority to pass the last stop signal at “ON” in prescribed form T/C 602 shall be issued.

RUNNING TIME OF TRAINS UNDER AUTHORITY TO PROCEED WITHOUT LINE CLEAR [T/C.602].

Section	Distance	Running time during day and view ahead in clear at 25 KM PH.	Running time during night, thick foggy tempestuous weather or when view ahead is not clear at 10 KM PH
PVP-SNM	12.8 KM	30.72 mnts	76.8 mnts.
PVP-GMDA	13.3 KM	31.92 mnts	79.8 mnts

RUNNING TIME OF TRAINS UNDER AUTHORITY TO PROCEED WITH OUT LINE CLEAR [T/B.602]

Section	Distance	Running time during day 15 KM PH.	Running time during night, thick foggy tempestuous weather or when view ahead is not clear at 10 KM PH.
PVP-SNM	12.80 KM	51.2 mnts	76.8 mnts.
PVP-GMDA	13.3 KM	53.2 mnts	79.8 mnts

10.0 VISIBILITY TEST OBJECT:

The signal lights of UP starter signal No.9 of UP line and DN starter Signal No.10 of DN main line during day and night are the visibility test objects vide GR 3.61 [2] [b][iii].

11.0 ESSENTIAL EQUIPMENT AT THE STATION:

The list of essential equipment is given in Appendix ‘E’ which shall be maintained in good

working order vide OM 20.04[11].

12.0 FOG SIGNAL MEN NOMINATED TO BE CALLED IN CASE OF FOG:

In Foggy or tempestuous weather or in dust storm when V.T.O cannot be seen from the Station building, the SS/SM shall send trained men to act as for signalmen. The rules laid down in GR-3.61 and 3.64 with relevant SRs shall be followed. In case of

- a) Visibility test object specified in item No.10 above in terms of GR-3.61[2][b][I].
- b) When due to foggy or tempestuous weather or dust storm, the station V T O cannot be seen, the SS/SM on duty shall send the trained fog signal men with sufficient numbers of valid detonator, hand signals to act as fog signal men vide SR-3.61.01[d].
- c) SS/SM shall select some of the traffic staff and some engineering staff drawn from engineering branch and council the use of fog signals and take their assurance in the part I of fog signal register in the month of October every year vide SR-3.64.07[I].

13. LIST OF APPENDICES :

APPENDIX 'A'	WORKING OF LEVEL CROSSING GATES.
APPENDIX 'B'	SYSTEM OF SIGNALLING AND INTERLOCKING AND COMMUNICATION ARRANGEMENTS AT THE STATION.
APPENDIX 'C'	ANTI COLLISION DEVICE [RAKSHA KAVACH]
APPENDIX 'D'	DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT.
APPENDIX 'E'	LIST OF ESSENTIAL EQUIPMENTS PROVIDED AT THE STATION.
APPENDIX 'F'	RULES FOR WORKING OF DK STATIONS, HALTS IBH IBS, AND OUTLYING SIDINGS.
APPENDIX 'G'	RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTION

14. CERTIFICATE:

Nothing in these rules shall be read as cancelling amending or modifying any General Rules and Subsidiary rules. Block working manual and operating manual. These rules cancel all previous station working rules of PARVATIPURAM station.

APPENDIX-‘A’**WORKING RULES OF PARVATIPURAM STATION LEVEL CROSSING GATES****1. GENERAL:****1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:**

Following details shall be maintained at all manned level crossing gates:

1	No. of Level Crossing Gate	:	RV-283
2	Engineering or Traffic gate	:	Traffic Gate –‘Spl’ Class
3	Under control of station master or permanent way inspector.	:	SM PVP
4	Location at Km.	:	389/13-15(UP), 389/14-16(DN)
5	At station	:	Parvatipuram
6	In between station	:	PVP-SNM
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Open to Road Traffic
10	Interlocked/ Non-Interlocked	:	Interlocked
11	Means of Interlocking	:	Electrical Key transmission
12	Provision of gate signal at Km.	:	i) UP Line: Nil ii) DN Line: Nil
13	Signaling arrangement	:	MACL
14	Means of communication Telephone.	:	Telephone Connected with PVP Station
15	Width of the level crossing gate	:	13.5 M
16	Type of road	:	Village
17	Name of road	:	Parvatipuram Valrgodaba
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	Level
20	Width of the road	:	7.5 M
21	Angle of road crossing (in case of the SKEW gates)	:	90 ⁰
22	Road gradients (if any)	:	North/East Side: Level South/West Side: Level
23	Road alignment (straight/Curve)	:	North/East Side: Straight South/West Side: Straight
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Coupled Lifting Barriers
26	Length of check rails	:	9.5 M
27	Road surface in between level crossing gates.	:	Plain
28	Length of rumble strip/ speed breakers	:	Provided
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided

31	TVU	:	51150 as on 03-03-2017
32	Census next due on	:	2020
33	Demarcation for placement of detonators	:	Provided
34	No. of gateman working	:	3
35	Nearest Railway Medical Assistance	:	RGDA
36	Nearest Private Medical Assistance available (if any)	:	Parvitipuram
37	List of equipment available (Yes/No)	:	Yes

1.2 EQUIPMENT TO BE AVAILABLE AT THE GATE LODGE:

SN	Description	Requirement	To be used as
1	LED Tri colour hand signal lamps	Two	One for use and another for spare
2	Green Hand Signal Flag	One flag mounted on sticks	To hold in furled condition while passing train.
3	Red Hand Signal Flag	Two flags mounted on sticks	One to hold in furled condition and another for spare.
4	Red Banner Flag mounted with sticks	Single line-2 Double line-2 Multiple lines-3	In case of obstruction, one flag is to be displayed on each line except on single line it is to be placed on either side of the line
5	Spare chains with Padlocks	2 chains with 2 Padlocks	For securing gate against road traffic in case of gate boom cannot be closed.
6	Stop Boards	2 retro reflective stop boards with stands	To display towards road traffic when gate is secured by gate chains due to failure of booms.
7	Padlock	one	To lock the door of the gate lodge in case of necessity
8	Detonators	Ten(10) in a tin case	For use in case of obstruction of track
9	Tommy Bar	one	For levelling the soil surface or to clean the channels of rails
10	Bucket	one	To keep water
11	Whistle	one	For alerting road users on approach of train and LP/Guard to call their attention.
12	Wall clock	one	To note down the timing in PN/Log book
13	A small size chain for use in case of failure of gate boom/Leaf Lock	one	For securing boom in closed condition in case of failure of boom lock.

1.3 RECORDS TO BE KEPT AT GATE LODGE:

In addition to the above equipment, following records shall also be kept at the gate lodge.

1. Gate Working Instructions in Hindi / English.
2. Gate Working Instructions in local vernacular language.
3. Gateman Rule Book in local vernacular language
4. List for tools and books.
5. Duty Roster.
6. Certificate for working as gateman.
7. Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.

1.4 DUTIES OF GATEMAN:

1. ALERTNESS:

The gateman shall be alert and be prepared to take immediate action, should danger be apprehended. Keys of the gate shall be in his personal custody.

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional CH.DTI.

3. POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gateman will stand in the manner indicated below:

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- iii) In night time, gateman shall hold lighted hand signal lamp with white light facing the track.
- iv) He shall keep the whistle slung around his neck from a cord.

3. ROUTING DUTIES OF GATEMAN:

- i) Gateman shall ensure that red flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to

ensure safety of trains.

- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also prepared to repeat any signal which guard may give to Loco Pilot on walkie-talkie or in any other way.
- vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- x) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xv) Gateman shall see that the channel for the flange of the wheel is kept clean.
- xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- xviii) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
- xix) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

4. **ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:**

In case gateman observes anything unusual with a passing train, he shall take following action:

- i) He shall take prompt action to warn the Loco Pilot / guard of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot / guard fails to take notice, gateman shall immediately inform the Station Master, If connected on telephone, to take appropriate action, under exchange of private number.
- iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavour to attract the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

5. **ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:**

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if any, in the 'ON' position.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connected by telephone, regarding the defects / obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under:-

a) **On double line section:**

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and a red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, and red

flag by day and red hand signal lamp by night.

- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) On single line section:

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the LP of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.

viii) Thereafter, he shall light up and fix the fusee to warn the LP and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) **Other action to be taken by Gateman:**

- i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (A) and (B) above.
- ii) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.
- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the nearest Station Master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or through means available.

1.6 ENGINEERING ITEMS:

Please see para 916, 918, 919 of IRPWM for visibility requirements at level crossings, provision of speed breakers on the approaching roads of level crossings and census of traffic at level crossings.

WORKING INSTRUCTIONS OF RV-283

(General Instructions are common for all types of Manual Level Crossing Gates)

1. Mode of Operation:

Gate shall normally kept open to the road traffic, whenever it is required to close gateman on duty shall ensure clearance of road traffic, operate the electrical lifting barrier as per the following procedure.

- [i] Buttons are provided on panel for closing and opening of LC gate
Respectively (marked as green 'G' for closing and locking & yellow 'Y' for Opening respectively)
- [ii] The Push button 'G' pressed, till the gate is close and locked.
- [iii] After the gate is closed and locked, then Key 'H' can be extracted from EKT-1.
- [iv] Key 'H' thus extracted is inserted in EKT-2 & transmitted electrically to panel in conjunction with switch GS(Gate slot) reversed releases concerned UP & DN signals respectively.
- [v] For opening of LC gate, SM transmits control no. 30. Key 'H' is extracted from EKT-2 inserted in EKT-1& turned.
- [vi] In case of emergency KEY-K (chained with boom crank handle) is extracted from EKT-3 Electro mechanically free) provided at gate lodge (in a locked and sealed red box with glass cover) for manual operation of lifting barriers by crank handling in case of emergency.
- [vii] Extraction of KEY-'K' shall put back all the relevant signals to 'ON'.
- [viii] Switch GS(Gate Slot) is provided in the gate lodge to put back the concerned UP & DN signals to 'ON' in case of emergency.

2. Exchange of Private Numbers:

- (i) Before taking off reception / departure signals Station Master shall inform the gateman, the number, description and direction of the train.
- (ii) The gateman shall close the gate and transfer the key to the Station Master.
- (iii) The reception / departure signals will then be taken 'OFF'.
- (iv) In order to ensure that road traffic is not held up for a long time, the Station Master must ensure that the train is ready for departure in all respects before he advises the gateman for closing the gate.
- (v) If the gate is operated from the cabin itself, Station Master shall ensure that the gate is closed against road traffic, before taking 'OFF' reception / departure signals.
- (vi) When a train has to be piloted to and from the station yard or any shunting movement is to be done, the staff deputed to pilot the train or to perform the shunting across the gate shall be personally responsible to ensure that the gate is closed against road traffic before allowing any movement across the gate.

3. Failure of Telephonic Communication:

When Telephonic Communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted:

- (i) Station Master on duty shall send written advice to the gateman through the porter with full details of number, description and direction of the train.
- (ii) Gateman on receipt of such advice shall close the gate and transmit the key to the Station Master which will enable them to take 'OFF' reception / departure signals.
- (iii) When sufficient time is not available because of greater frequency of train service Station Master will issue written authority to the train Loco Pilot to pass the signal at 'ON' position.
- (iv) In addition Station Master shall also issue a caution order advising the Loco Pilot to whistle continuously and approach the gate cautiously.
- (v) The train Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, Loco Pilot should be prepared to stop short of the gate and ensure that gate is closed following GR 3.73(2)(b).
- (vi) In case of an approaching train, the Station Master shall advise the Station Master at the despatching end, under exchange of private number, that the telephone at the gate has failed.
- (vii) The Station Master at the despatching end shall then issue a caution order to the drive before despatching a train in the block section from his end.
- (viii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.
- (ix) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. **Failure of Lifting Barriers :**

- (i) When the gate cannot be closed due to failure of lifting barriers gateman will immediately inform the Station Master on duty, under exchange of private number, and ensure the lifting barriers do not foul the track.
- (ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- (iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.
- (iv) After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light by night to the Loco Pilot of the approaching train.
- (v) Station Master on duty shall issue a caution order to the Loco Pilot of a departing train.
- (vi) He shall also advise the Station Master at the despatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before despatching a train the block section from his end.

- (vii) Station Master will advise maintenance staff responsible for maintenance of lifting barriers to repair the defect at the earliest.
- (viii) Normal working will resumed only after maintenance staff repair the barrier and issue reconnection / fit memo for the same.

Note:

- (a) In case of failure of lifting barriers worked from the cabin, Station Master will send station porter to secure the gate against road traffic by safety chains and padlocks.
- (b) Authority to pass signals at 'ON' position as per rules shall also be issued to the Loco Pilot of both departing and arriving trains.

5. Failure of the Gate Key with the gate in closed position when Gate Key cannot be extracted for opening the gate:

- (i) If the gate key cannot be extracted from the winch, the key transmitter, then gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.
- (ii) If Emergency Key is available at the gate lodge / cabin, Gateman will take it out from the sealed box by breaking the seal and open the gate for road traffic.
- (iii) The record of the date and time of breaking the sealed cover of Emergency Key Box shall be recorded and signed with reasons.
- (iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.
- (v) Station Master on duty shall issue a caution order to the Loco Pilot of a departing train.
- (vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- (vii) Station Master will advise S&T staff responsible for maintenance of winch /key transmitter to rectify the defect at the earliest.
- (viii) Normal working will resumed only after S&T staff repair the winch/key transmitter and issue reconnection/fit memo for the same.
- (ix) After rectification, the Emergency Key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

6. Failure of the Gate Key, with the gate in open condition:

- (i) If the gate key cannot be extracted from the winch, gate lever or key transmitter then gateman must immediately inform the Station Master on duty on telephone under exchange of private number.

- (ii) Thereafter, the gate must be treated as non-interlocked and procedure for reception / dispatch of trains as prescribed for non-interlocked gates should be adopted.
- (iii) Gateman shall secure the gate against road traffic by means of chains and padlocks and pass the trains on hand signals.
- (iv) Station Master on duty shall issue caution order to the Loco Pilot of a departing train.
- (v) He shall also advise the Station Master at the dispatching end under exchange of private number to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- (vi) Station Master will advise S&T staff responsibility for maintenance of winch/ key transmitter to rectify the defect at the earliest.
- (vii) Normal working will resumed only after S&T staff repair the winch / key transmitter and issue reconnection / fit memo for the same.
- (viii) After rectification, the Emergency Key shall be replaced in the Emergency Key Box and released by the S&T maintainer.

7. **Obstruction at the Gate:**

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.
- (ii) Immediately after this, the gateman shall advise the Station Master on duty, regarding the defects/obstruction at the gate, under exchange of private number.
- (iii) Station Master on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- (iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.
- (v) Gateman shall then rush with detonators, and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no.1.5(5).
- (vi) There he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the gateman that the road vehicle or the lifting barriers are not fouling the track.
- (viii) The Station Master shall also inform the Station Master at the dispatching

end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstructions.

- (ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- (x) Station Master shall then issue a caution order to Loco Pilot of all train to proceed cautiously, and pass the reception / departure signal at 'ON' position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- (xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks and there after exhibit green hand signal, if the gate is not obstructed.
- (xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers to repair same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

8. **Obstruction on the Track near Level Crossing:**

If there is a rail fracture or obstruction on the track due to failing of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.7 above. If the obstruction fouls the Level Crossing Gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

WORKING RULES OF PARVATIPURAM STATION LEVEL CROSSING GATES

1. GENERAL:

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

Following details shall be maintained at all manned level crossing gates:

1	No. of Level Crossing Gate	:	RV-281
2	Engineering or Traffic gate	:	Engineering Gate –‘Spl’ Class
3	Under control of station master or permanent way inspector.	:	SSE(P)/PVP
4	Location at Km.	:	387/15-17(UP),387/16-18(DN)
5	At station	:	---
6	In between station	:	GMDA- PVP
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Open to Road Traffic
10	Interlocked/ Non-Interlocked	:	Interlocked
11	Means of Interlocking	:	Electrical lever frame and Electrical Key transmission to control no 29
12	Provision of gate signal at Km.	:	UP Line:386/15 DN Line:388/6
13	Signalling arrangement	:	MACL
14	Means of communication Telephone	:	Telephone Connected with PVP Station
15	Width of the level crossing gate	:	16 M
16	Type of road	:	SH
17	Name of road	:	Municipal
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	Level
20	Width of the road	:	10 M
21	Angle of road crossing (in case of the SKEW gates)	:	Straight
22	Road gradients (if any)	:	[a]North/East Side: Level [b]South/West Side: Level
23	Road alignment (straight/Curve)	:	[a] North/East Side : Straight [b] South/East Side : Straight
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Coupled Lifting Barriers
26	Length of check rails	:	12 M
27	Road surface in between level crossing gates.	:	Level
28	Length of rumble strip/ speed breakers	:	Provided
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided
31	TVU	:	237164 – 10.08.2018
32	Census next due on	:	2021

- 33 Demarcation for placement of detonators : Provided
- 34 No. of gateman working : 3
- 35 Nearest Railway Medical Assistance : RGDA
- 36 Nearest Private Medical Assistance available (if any) : Parvitipuram
- 37 List of equipment available (Yes/No) : Yes

1.2 **EQUIPMENT:**

	Items	<u>Quantity / Numbers</u>
1.	LED based Tri colour Hand Signal	3 Nos.
2.	Hand Signal Flag Green	1 No with mounted stick
3.	Hand Signal Flag Red	6 Nos.
4.	Banner Flag Red	5 Nos.
5.	Posts for exhibiting red banner flag	4 Nos.
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.
23.	A small size chain for use in case of failure of gate boom/Leaf Lock	2 Nos.

1.3 **RECORDS TO BE KEPT AT GATE LODGE:**

In addition to the above equipment, following records shall also be kept at the gate lodge.

1. Gate Working Instructions in Hindi / English.
2. Gate Working Instructions in local vernacular language.
3. Gateman Rule Book in local vernacular language
4. List for tools and books.
5. Duty Roster.
6. Certificate for working as gateman.
7. Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.
12. Signal Failure and Inspection Register.

1.4 DUTIES OF GATEMAN:

1. ALERTNESS:

The gateman shall be alert and be prepared to take immediate action, should danger be apprehended. Keys of the gate shall be in his personal custody.

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/PWAY.

3. POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gateman will stand in the manner indicated below:

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- iii) In night time, gateman shall hold lighted hand signal lamp with white light facing the track.
- iv) He shall keep the whistle slung around his neck from a cord.

4. ROUTINE DUTIES OF GATEMAN:

- i) Gateman shall ensure that red flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must

- close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
 - v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle/wagons/train/battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
 - vi) Gateman shall also prepared to repeat any signal which guard may give to Loco Pilot on walkie-talkie or in any other way.
 - vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
 - viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
 - ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
 - x) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
 - xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
 - xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
 - xiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
 - xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
 - xv) Gateman shall see that the channel for the flange of the wheel is kept clean.
 - xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
 - xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
 - xviii) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
 - xix) Gateman shall prevent trespassing by persons or cattle to the maximum extent.

4. ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

In case gateman observes anything unusual with a passing train, he shall take following action:

- i) He shall take prompt action to warn the Loco Pilot / guard of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot / guard fails to take notice, gateman shall immediately inform the Station Master, If connected on telephone, to take appropriate action, under exchange of private number.
- iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavour to attract the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

5. ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if any, in the 'ON' position.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connected by telephone, regarding the defects / obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under:-

a) On double line section:

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and a red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night

on the line on which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

- v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) On single line section:

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the LP of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall light up and fix the fusee to warn the LP and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

c) **Other action to be taken by Gateman:**

- i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (A) and (B) above.
- ii) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.
- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the nearest Station Master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or through means available.

1.6 ENGINEERING ITEMS:

Please see para 916, 918, 919 of IRPWM for visibility requirements at level crossings, provision of speed breakers on the approaching roads of level crossings and census of traffic at level crossings.

ANNEXURE – I**WORKING INSTRUCTIONS OF RV-281.**

(General Instructions are common for all types of Manned Level Crossing Gates)

1. Mode of Operation:

Gate shall normally kept open to the road traffic whenever it is required to close the gate SM on duty shall inform the gate man on duty about the direction and description of the train intended to receive or despatch. Gate man on duty shall ensure clearance of road traffic close and lock the gate. There after he will perform the following procedure to take off the Gate home signals as the case may be.

- i) Key 'E' extracted from the winch after closing level crossing gate releases gate lever No.2 GF.
- ii) Lever No.2 thus reversed effects boom locking and releases lever No.3 to clear UP gate Home No.3 and Lever No.4 to clear DN Home signal No.4 and also releases Key 'F'.
- iii) Key 'F' is transmitted Electrically to SS/SM to release control 29 to clear DN Adv. Starter No.12.

2. Exchange of Private Numbers:

- i) Station Master shall advise the gateman through telephone connected at his end, the number, description, direction and expected time of passage of the train at the gate.
- ii) The Gate stop signal controls advance starter. Hence after ensuring the closure of LC gate SM shall dispatch the train.
- iii) Before dispatching the train for UP trains this advice shall be given by the Station Master to the gateman as soon as he receives train entering section advice from the dispatching station.
- iv) It should be the duty of the gateman to ensure that the gate is closed in time, so that there is no detention to the train or excessive detention to road traffic.

3. Failure of Telephonic Communication:

When Telephonic Communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted:

- i) If the telephone falls at the gate connected with the station at the despatching end, Station Master shall issue a caution order to the Loco Pilot of the departing train.
- ii) Station Master shall advise the Loco Pilot to whistle continuously and proceed cautiously while approaching the gate.
- iii) In case the gate signal is 'ON' he should stop short of the gate signal and follow the procedure laid down under GR 3.73.
- iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.
- v) The Station Master at the dispatching end shall then issue a caution order to the

Loco Pilot before dispatching a train in the block section from his end.

- vi) Station Master will also advise the gateman through Gangman / Patrolman / Loco Pilot of the first train that the telephone has become defective.
- vii) Station Master should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. **Failure of Lifting Barriers**

- i) When the gate cannot be closed due to failure of lifting barriers, the gateman shall immediately inform the Station Master on duty under exchange of private number, and ensure that lifting of barriers do not foul the track.
- ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- iii) Gateman shall secure that gate against road traffic by means of safety chains and padlocks.
- iv) After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light to the Loco Pilot of the approaching train.
- v) Station Master on duty shall issue caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the Station Master at the dispatching end, under exchange of private number; to similarly issue a caution order to the Loco Pilot before despatching a train in the block section.
- vii) Station Master shall advise maintenance staff responsible for maintaining the lifting barrier to rectify the same at the earliest.
- viii) Normal working will be resumed only after maintenance staff repair the lifting barrier and issue reconnection / fit memo for the same.

5. **Failure of Gate Key with the gate in closed position, when Gate Key cannot be extracted for opening the gate:**

- i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station on duty on telephone, under exchange of private number.
- ii) If Emergency Key is available at the gate lodge / cabin, Gateman will take it out from the sealed box by breaking the seal and open the gate for road traffic.
- iii) The record of the date and time of breaking the sealed cover of Emergency key Box shall be recorded and signed with reasons.
- iv) Thereafter, the gate must be treated as non-interlocked and procedure for

reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.

- v) Station Master on duty shall issue caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before despatching a train in the block section from his end.
- vii) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.
- viii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection / fit memo for the same.
- ix) After rectification, the Emergency key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

6. Failure of the Gate Key with the gate in open condition:

- i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.
- ii) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.
- iii) The gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals.
- iv) Station Master on duty shall issue a caution order to the Loco Pilot of a departing train.
- v) He shall also advise the Station Master at the despatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- vi) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.
- vii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection / fit memo for the same.
- viii) After rectification, the Emergency key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

7. Defective Gate Signals:

- i) The gateman shall treat the gate as defective and must not lower them under following circumstances:
 - a) If gate signals can be taken 'OFF' without closing the gate, or

- b) The key can be extracted from the operation winch when the gate is in open condition, or
- c) The key can be extracted from the gate is in open condition
- ii) If the Gate or the Gate Signal or Warner / Distant Signal becomes defective in 'OFF' position, the gateman will make all efforts to put it at 'ON' position even by cutting signal wires, if necessary.
- iii) The gateman will immediately advise the Station Master on duty, under exchange of private number, regarding defective gate signals.
- iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception / dispatch as prescribed for non-interlocked gates should be adopted.
- v) He shall show green hand signal flag by day and green light by night to the passing train after closing the gate.
- vi) Station Master on duty will issue a caution order to the Loco Pilot of a departing train.
- vii) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before despatching a train in the block section from his end.
- viii) Station Master shall advise S&T staff responsible for maintaining the gate signal to repair the same at the earliest.
- ix) Normal working will be resumed only after S&T staff rectify the defective gate signal and issue reconnection / fit memo for the same,

8. **Obstruction at the Gate:**

- i) If the gate is broken by road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately put back gate signals to 'ON' position.
- ii) He shall fix red banner flag by day and red lamp by night on posts provided at both ends of the gate for this purpose.
- iii) Immediately after this, the gateman shall advise the Station Master on duty regarding the defects / obstructions at the gate, under exchange of private number.
- iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.
- v) Gateman shall then rush with detonators, and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no. 1.5(5).
- vi) Thereafter he shall protect the gate from the other direction also.

- vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the gateman that the road vehicle or the lifting barriers are not fouling the track.
- viii) The Station Master shall also inform the Station Master at the despatching end, under exchange of private number, asking him not to despatch any train in the block section from his end, until the track has been cleared of all obstruction.
- ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- x) Station Master shall then issue a caution order to Loco Pilot of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks, and there after exhibit green hand signal, if the gate is not obstructed.
- xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

9. **Obstruction on the Track near Level Crossing Gate:**

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.8 above. If the obstruction fouls the Level Crossing Gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

WORKING RULES OF PARVATIPURAM STATION LEVEL CROSSING GATES

1. GENERAL:

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

Following details shall be maintained at all manned level crossing gates:

1	No. of Level Crossing Gate	:	RV-278
2	Engineering or Traffic gate	:	Engineering Gate –‘SPL’ Class
3	Under control of station master or permanent way inspector.	:	SSE(P)/PVP
4	Location at Km.	:	382/23-25(UP), 382/24-26(DN)
5	At station	:	-----
6	In between station	:	PVP-GMDA
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Open to Road Traffic
10	Interlocked/ Non-Interlocked	:	Interlocked
11	Means of Interlocking	:	Ground Lever Frame
12	Provision of gate signal at Km.	:	i) UP Line: 382.550 ii) DN Line: 382.920
13	Signaling arrangement	:	MACL
14	Means of communication Telephone.	:	Telephone Connected with PVP Station
15	Width of the level crossing gate	:	10 M
16	Type of road	:	Other
17	Name of road	:	R & B
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	Level
20	Width of the road	:	10 M
21	Angle of road crossing (in case of the SKEW gates)	:	Straight
22	Road gradients (if any)	:	North/East Side: Level South/West Side: Level
23	Road alignment (straight/Curve)	:	North/East Side: Straight South/West Side: Straight
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Coupled Lifting Barriers
26	Length of check rails	:	12.5M
27	Road surface in between level crossing gates.	:	Level
28	Length of rumble strip/speed breakers	:	Provided
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided
31	TVU	:	235135-11.03.2018
32	Census next due on	:	2021
33	Demarcation for placement	:	Provided

- of detonators
- 34 No. of gateman working : 3
- 35 Nearest Railway Medical : RGDA Assistance
- 36 Nearest Private Medical : Parvatipuram Assistance available (if any)
- 37 List of equipment available : Yes (Yes/No)

1.2 **EQUIPMENT:**

	Items	<u>Quantity / Numbers</u>
1.	LED based Tri Colour hand Signal Lamp	3 Nos.
2.	Hand Signal Flag Green	1 No with mounted stick
3.	Hand Signal Flag Red	6 Nos.
4.	Banner Flag Red	5 Nos.
5.	Posts for exhibiting red banner flag	4 Nos.
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.
23.	A small size chain for use in case of failure of gate boom/Leaf Lock	2 No.

1.3 RECORDS TO BE KEPT AT GATE LODGE:

In addition to the above equipment, following records shall also be kept at the gate lodge.

1. Gate Working Instructions in Hindi / English.
2. Gate Working Instructions in local vernacular language.
3. Gateman Rule Book in local vernacular language
4. List for tools and books.
5. Duty Roster.
6. Certificate for working as gateman.
7. Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.
12. Signal Failure and Inspection Register.

1.4 DUTIES OF GATEMAN:**1. ALERTNESS:**

The gateman shall be alert and be prepared to take immediate action, should danger be apprehended. Keys of the gate shall be in his personal custody.

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/PWAY

3. POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gateman will stand in the manner indicated below:

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- iii) In night time, gateman shall hold lighted hand signal lamp with white light facing the track.
- iv) He shall keep the whistle slung around his neck from a cord.

4. ROUTINE DUTIES OF GATEMAN:

- i) Gateman shall ensure that red flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.

- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also prepared to repeat any signal which guard may give to Loco Pilot on walkie-talkie or in any other way.
- vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- x) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xv) Gateman shall see that the channel for the flange of the wheel is kept clean.
- xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.

- xviii) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
- xix) Gateman shall prevent tress passing by persons or cattle to the maximum extent.

5. **ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:**

In case gateman observes anything unusual with a passing train, he shall take following action:

- i) He shall take prompt action to warn the Loco Pilot / guard of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot/guard fails to take notice, gateman shall immediately inform the Station Master, If connected on telephone, to take appropriate action, under exchange of private number.
- iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavour to attract the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

6. **ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:**

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if any, in the 'ON' position.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connected by telephone, regarding the defects / obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under:-

a) **On double line section:**

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red

light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.

- ii) Then he will similarly plant the other red banner flag by day and a red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) On single line section:

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the LP of the approaching train.

- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall light up and fix the fusee to warn the LP and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

c) **Other action to be taken by Gateman:**

- i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (A) and (B) above.
- ii) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.
- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the nearest Station Master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or through means available.

1.6 ENGINEERING ITEMS:

Please see para 916, 918, 919 of IRPWM for visibility requirements at level crossings, provision of speed breakers on the approaching roads of level crossings and census of traffic at level crossings.

ANNEXURE – I**WORKING INSTRUCTIONS OF RV-278.**

(General Instructions are common for all types of Manned Level Crossing Gates)

1. Mode of Operation:

Gate shall normally kept open to the road traffic whenever it is required to close the gate SM on duty shall inform the gate man on duty about the direction and description of the train intended to receive or despatch. Gate man on duty shall ensure clearance of road traffic close and lock the gate. There after he will perform the following procedure to take off the Gate home signals as the case may be.

- i) Key 'M' is obtained from winch after closing the level crossing releases 1GF.
- ii) Lever No 1 GF reversed effects the level crossing boom lock releases key 'N'
- iii) Key 'IN' contact of RKT along with reversal of switches 3GS clear concerned UP gate stop signal (3GS) and DN gate stop signal (4GS) respectively.
- iv) In case of emergency signals can be put back to 'ON' by normalizing the signal switches.

2. Exchange of Private Numbers:

- i) Immediately after departure of the train, Station Master shall advise the gateman through telephone connected at his end, the number, description, direction and expected time of passage of the train at the gate.
- ii) If the telephone is connected to the station at the receiving end, this advice shall be given by the Station Master to the gateman as soon as he receives train entering section advice from the dispatching station.
- iii) If the actual running time of the train from either end of the section is less than 10 minutes, Station Master will convey this advice to the gateman before obtaining / granting line clear.
- iv) It should be the duty of the gateman to ensure that the gate is closed in time, so that there is no detention to the train or excessive detention to road traffic.

3. Failure of Telephonic Communication:

When Telephonic Communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted:

- i) If the telephone falls at the gate connected with the station at the despatching end, Station Master shall issue a caution order to the Loco Pilot of the departing train.
- ii) Station Master shall advise the Loco Pilot to whistle continuously and proceed cautiously while approaching the gate.
- iii) In case the gate signal is 'ON' he should stop short of the gate signal and follow the procedure laid down under GR 3.73.
- iv) In case of an approaching train, the Station Master shall advise the Station Master

at the dispatching end, under exchange of private number, that the telephone at the gate has failed.

- v) The Station Master at the dispatching end shall then issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- vi) Station Master will also advise the gateman through Gangman / Patrolman / Loco Pilot of the first train that the telephone has become defective.
- vii) Station Master should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. **Failure of Lifting Barriers**

- i) When the gate cannot be closed due to failure of lifting barriers, the gateman shall immediately inform the Station Master on duty under exchange of private number, and ensure that lifting of barriers do not foul the track.
- ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- iii) Gateman shall secure that gate against road traffic by means of safety chains and padlocks.
- iv) After securing the gate against road traffic, gateman shall show green hand signal flag by day and green light to the Loco Pilot of the approaching train.
- v) Station Master on duty shall issue caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the Station Master at the dispatching end, under exchange of private number; to similarly issue a caution order to the Loco Pilot before despatching a train in the block section.
- vii) Station Master shall advise maintenance staff responsible for maintaining the lifting barrier to rectify the same at the earliest.
- viii) Normal working will be resumed only after maintenance staff repair the lifting barrier and issue reconnection / fit memo for the same.

5. **Failure of Gate Key with the gate in closed position, when Gate Key cannot be extracted for opening the gate:**

- i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station on duty on telephone, under exchange of private number.
- ii) If Emergency Key is available at the gate lodge / cabin, Gateman will take it out from the sealed box by breaking the seal and open the gate for road traffic.

- iii) The record of the date and time of breaking the sealed cover of Emergency key Box shall be recorded and signed with reasons.
- iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.
- v) Station Master on duty shall issue caution order to the Loco Pilot of a departing train.
- vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before despatching a train in the block section from his end.
- vii) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.
- viii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection / fit memo for the same.
- ix) After rectification, the Emergency key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

6. **Failure of the Gate Key with the gate in open condition:**

- i) If the gate key cannot be extracted from the winch, gate signal lever or key transmitter then gateman must immediately inform the Station Master on duty on telephone, under exchange of private number.
- ii) Thereafter, the gate must be treated as non-interlocked and procedure for reception / despatch of trains as prescribed for non-interlocked gates, should be adopted.
- iii) The gateman shall secure the gate against road traffic by means of chains and padlocks and pass trains on hand signals.
- iv) Station Master on duty shall issue a caution order to the Loco Pilot of a departing train.
- v) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before dispatching a train in the block section from his end.
- vi) Station Master shall advise S&T staff responsible for maintaining the key transmitter to repair the same at the earliest.
- vii) Normal working will be resumed only after S&T staff repair the key transmitter and issue reconnection / fit memo for the same.
- viii) After rectification, the Emergency key shall be replaced in the Emergency Key Box and resealed by the S&T maintainer.

7. **Defective Gate Signals:**

- i) The gateman shall treat the gate as defective and must not lower them under following circumstances:

- a) If gate signals can be taken 'OFF' without closing the gate, or
- b) The key can be extracted from the operation winch when the gate is in open condition, or
- c) The key can be extracted from the when the gate is in open condition
- ii) If the Gate or the Gate Signal or Warner / Distant Signal becomes defective in 'OFF' position, the gateman will make all efforts to put it at 'ON' position even by cutting signal wires, if necessary.
- iii) The gateman will immediately advise the Station Master on duty, under exchange of private number, regarding defective gate signals.
- iv) Thereafter, the gate must be treated as non-interlocked and procedure for reception / dispatch as prescribed for non-interlocked gates should be adopted.
- v) He shall show green hand signal flag by day and green light by night to the passing train after closing the gate.
- vi) Station Master on duty will issue a caution order to the Loco Pilot of a departing train.
- vii) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the Loco Pilot before despatching a train in the block section from his end.
- viii) Station Master shall advise S&T staff responsible for maintaining the gate signal to repair the same at the earliest.
- ix) Normal working will be resumed only after S&T staff rectify the defective gate signal and issue reconnection/fit memo for the same,

8. **Obstruction at the Gate:**

- i) If the gate is broken by road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately put back gate signals to 'ON' position.
- ii) He shall fix red banner flag by day and red lamp by night on posts provided at both ends of the gate for this purpose.
- iii) Immediately after this, the gateman shall advise the Station Master on duty regarding the defects / obstructions at the gate, under exchange of private number.
- iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.
- v) Gateman shall then rush with detonators, and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no. 1.5(5).
- vi) Thereafter he shall protect the gate from the other direction also.

- vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been assured by the gateman that the road vehicle or the lifting barriers are not fouling the track.
- viii) The Station Master shall also inform the Station Master at the despatching end, under exchange of private number, asking him not to despatch any train in the block section from his end, until the track has been cleared of all obstruction.
- ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- x) Station Master shall then issue a caution order to Loco Pilot of all trains to proceed cautiously, and pass the gate signal at 'ON' position on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- xi) Gateman shall secure the gate against road traffic by means of safety chains and padlocks, and there after exhibit green hand signal, if the gate is not obstructed.
- xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

9. **Obstruction on the Track near Level Crossing Gate:**

If there is a rail fracture or obstruction on the track due to falling of a tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.8 above. If the obstruction fouls the Level Crossing Gate, gateman must keep the gates closed against road traffic till the track is cleared of the obstruction.

WORKING RULES OF PARVATIPURAM STATION LEVEL CROSSING GATES

1. GENERAL:

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

Following details shall be maintained at all manned level crossing gates:

1	No. of Level Crossing Gate	:	RV-286
2	Engineering or Traffic gate	:	Engineering Gate –‘C’ Class
3	Under control of station master or permanent way inspector.	:	SSE(P)/PVP
4	Location at Km.	:	393/13-15(UP),393/14-16(DN)
5	At station	:	---
6	In between station	:	PVP-SNM
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Close to Road Traffic
10	Interlocked/Non-Interlocked	:	Non-Interlocked
11	Means of Interlocking	:	----
12	Provision of gate signal at Km.	:	UP Line: NIL DN Line: NIL
13	Signalling arrangement	:	NIL
14	Means of communication Telephone	:	Telephone Connected with PVP Station
15	Width of the level crossing gate	:	7.5 M
16	Type of road	:	OTHER
17	Name of road	:	Narsipuram village Road
18	Metalled /Non-Metalled	:	Non-Metalled
19	Approach road	:	C.C BLOCK
20	Width of the road	:	Provided
21	Angle of road crossing (in case of the SKEW gates)	:	90 ⁰
22	Road gradients (if any)	:	[a]North/East Side : 1 in 30 [b]South/West Side : 1 in 30
23	Road alignment (straight/Curve)	:	[a] North/East Side : Straight [b] South/East Side : Straight
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Lifting Barriers
26	Length of check rails	:	9.5 M
27	Road surface in between level crossing gates.	:	Level
28	Length of rumble strip/ speed breakers	:	Provided
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided
31	TVU	:	5048 on 12-26-15
32	Census next due on	:	12/2015
33	Demarcation for placement of detonators	:	Provided

- 34 No. of gateman working : 2
 35 Nearest Railway Medical Assistance : RGDA
 36 Nearest Private Medical : Parvatipuram
 Assistance available (if any)
 37 List of equipment available : Yes
 (Yes/No)

1.2 **EQUIPMENT:**

	Items	<u>Quantity / Numbers</u>
1.	Hand Signal Lamp Tri Colour	5 Nos.
2.	Hand Signal Flag Green	1 No with mounted stick
3.	Hand Signal Flag Red	6 Nos.
4.	Banner Flag Red	5 Nos.
5.	Posts for exhibiting red banner flag	4 Nos.
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.
23.	A small size chain for use in case of failure of gate boom/Leaf Lock	1 No.

1.3 **RECORDS TO BE KEPT AT GATE LODGE:**

In addition to the above equipment, following records shall also be kept at the gate lodge.

1. Gate Working Instructions in Hindi / English.
2. Gate Working Instructions in local vernacular language.
3. Gateman Rule Book in local vernacular language
4. List for tools and books.

5. Duty Roster.
6. Certificate for working as gateman.
7. Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.

1.4 DUTIES OF GATEMAN:

1. ALERTNESS:

The gateman shall be alert and be prepared to take immediate action, should danger be apprehended. Keys of the gate shall be in his personal custody.

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional CH.DTI.

3. POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gateman will stand in the manner indicated below:

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- iii) In night time, gateman shall hold lighted hand signal lamp with white light facing the track.
- iv) He shall keep the whistle slung around his neck from a cord.

4. ROUTING DUTIES OF GATEMAN:

- i) Gateman shall ensure that red flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.

- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also prepared to repeat any signal which guard may give to Loco Pilot on walkie-talkie or in any other way.
- vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- x) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xv) Gateman shall see that the channel for the flange of the wheel is kept clean.
- xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- xviii) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
- xix) Gateman shall prevent trespassing by persons or cattle to the maximum extent.

5. ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

In case gateman observes anything unusual with a passing train, he shall take following action:

- i) He shall take prompt action to warn the Loco Pilot / guard of the passing train by

showing red flag by day and red light by night.

- ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot / guard fails to take notice, gateman shall immediately inform the Station Master, If connected on telephone, to take appropriate action, under exchange of private number.
- iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavour to attract the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

5. ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if any, in the 'ON' position.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connected by telephone, regarding the defects / obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under:-

a) On double line section:

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and a red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

- v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) On single line section:

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the LP of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall light up and fix the fusee to warn the LP and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

c) Other action to be taken by Gateman:

- i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (A) and (B) above.
- ii) If the gate is broken by a road vehicle which is fouling the track, or if lifting

barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.

- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the nearest Station Master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or through means available.

1.6 ENGINEERING ITEMS:

Please see para 916, 918, 919 of IRPWM for visibility requirements at level crossings, provision of speed breakers on the approaching roads of level crossings and census of traffic at level crossings.

ANNEXURE-V**WORKING INSTRUCTIONS OF RV-286.**

(General Instructions are common for all types of Manned Level Crossing Gates)

1. Mode of Operation:

- i) The normal position of the LC gate being closed to road traffic. It should be in closed condition against road traffic, except when it is opened for passage of road traffic over the level crossing, subject to conditions prescribed below.
- i) the SM before permitting each train enter into the block section, shall ask gateman on the telephone by giving a PN whether gate is closed against road traffic for the passage of train. The gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a PN to the SM in assurance of gate being closed and locked against road traffic.
- ii) The SM shall not permit any train to enter the block section unless he is assured if the closure and locking of the gate by the gateman supported by exchange of PN.
- iii) When the gateman desires to open the gate for passage of road traffic he should ensure that:
 - a. He has not exchanged any PN with the station for any train or
 - b. If he has exchanged PN with the SM, the whole of the train with last vehicle indicator has passed over the LC gate and the SM has not exchanged PN with him for any other movement immediately in rear of the train or on the adjacent lines.

Before opening the gate for road traffic, he shall display banner flag/ danger signal at either end of the track at a distance of 5mts away from the gate. Then he shall open the gate for passing of road traffic by keeping red flag/ red hand signal lamp ready in his hand to stop approaching train if any.

3. Failure of Telephonic Communication:

When Telephonic Communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted.

- (i) Station Master at the dispatching end shall issue a caution order to the Loco pilot of the departing train.
- (ii) The caution order shall advise the Loco pilot to whistle continuously and approach the gate cautiously.
- (iii) The Loco pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, Loco pilot should be prepared to stop short of the gate and depute his Assistant Loco pilot to see the condition of the gate. IF the gate is closed, the Assistant Loco pilot will give the all right signal and if the gate is not closed the Assistant Loco pilot must close the gate and then give all right signal. In the absence of the Assistant Loco pilot, the Loco pilot may take the assistance of Assistant Guard / Guard.

- (iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.
- (v) The Station Master at the dispatching end shall then issue a caution order to the driver before dispatching a train in the block section from his end.
- (vi) Station Master shall also advise the gateman through gang man/patrolman or Loco pilot of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. Failure of Lifting Barriers

- (i) When the gate cannot be closed due to failure of lifting barriers, the gateman will immediately inform the Station Master on duty, under exchange of private number, and ensure that lifting barriers do not foul the track.
- (ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- (iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.
- (iv) After securing the gate against road traffic, he shall show green hand signal flag by day and green light by night to the driver of the approaching train.
- (v) Station Master on duty shall issue caution order to the Loco pilot of a departing train.
- (vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the driver before dispatching a train in the block section from his end.
- (vii) He should also advise maintenance staff responsible for maintenance of the lifting barriers to rectify the same at the earliest.
- (viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers and issue reconnection / fit memo for the same.

5. Obstruction at the Gate:

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this

purpose.

- (ii) Immediately after this, the gateman shall advise the Station Master on duty, regarding defects/obstruction at the gate, under exchange of private number.
- (iii) Station Master on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- (iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.
- (v) He shall then rush with detonators, fusee and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no.1.5(5).
- (vi) Thereafter he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been ensured by the gateman that the road vehicle or the lifting barriers are not fouling the track.
- (viii) The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstruction.
- (ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- (x) Station Master shall then issue a caution order to drivers of all trains to proceed cautiously, and pass the gate on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- (xi) Gateman shall secure the gate against road traffic by means of safety cabins and padlocks and there after exhibit green hand signal if the gate is not obstructed.
- (xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

6 Obstruction on the Track near Level Crossing:

If there is a rail fracture or obstruction on the track due to falling of tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.5 above. . If the obstruction fouls the Level Crossing Gate he must keep the gates closed against road traffic till the track is cleared of the obstruction.

WORKING RULES OF PARVATIPURAM STATION LEVEL CROSSING GATES

1. GENERAL:

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

Following details shall be maintained at all manned level crossing gates:

1	No. of Level Crossing Gate	:	RV-288
2	Engineering or Traffic gate	:	Engineering Gate –‘C’ Class
3	Under control of station master or permanent way inspector.	:	SSE(P)/PVP
4	Location at Km.	:	394/23-25
5	At station	:	---
6	In between station	:	PVP-SNM
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Close to Road Traffic
10	Interlocked/Non-Interlocked	:	Non-Interlocked
11	Means of Interlocking	:	----
12	Provision of gate signal at Km.	:	UP Line: NIL DN Line: NIL
13	Signalling arrangement	:	NIL
14	Means of communication Telephone	:	Telephone Connected with PVP Station
15	Width of the level crossing gate	:	7.5 M
16	Type of road	:	OTHER
17	Name of road	:	VILLAGE
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	C.C BLOCK
20	Width of the road	:	5.5 M
21	Angle of road crossing (in case of the SKEW gates)	:	90 ⁰
22	Road gradients (if any)	:	[a]North/East Side : 1 in 30 [b]South/West Side : 1 in 30
23	Road alignment (straight/Curve)	:	[a] North/East Side : Straight [b] South/East Side : Straight
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Lifting Barriers
26	Length of check rails	:	9.5 M
27	Road surface in between level crossing gates.	:	Level
28	Length of rumble strip/ speed breakers	:	5.5
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided
31	TVU	:	1996 on 12-26-2015
32	Census next due on	:	2015
33	Demarcation for placement of detonators	:	Provided

- 34 No. of gateman working : 2
 35 Nearest Railway Medical Assistance : RGDA
 36 Nearest Private Medical : Parvatipuram
 Assistance available (if any)
 37 List of equipment available : Yes
 (Yes/No)

1.2 **EQUIPMENT:**

	Items	<u>Quantity / Numbers</u>
1.	Hand Signal Lamp Tri Colour	5 Nos.
2.	Hand Signal Flag Green	1 No with mounted stick
3.	Hand Signal Flag Red	6 Nos.
4.	Banner Flag Red	5 Nos.
5.	Posts for exhibiting red banner flag	4 Nos.
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.
23.	A small size chain for use in case of failure of gate boom/Leaf Lock	1 No.

1.3 **RECORDS TO BE KEPT AT GATE LODGE:**

In addition to the above equipment, following records shall also be kept at the gate lodge.

1. Gate Working Instructions in Hindi / English.
2. Gate Working Instructions in local vernacular language.
3. Gateman Rule Book in local vernacular language
4. List for tools and books.

5. Duty Roster.
6. Certificate for working as gateman.
7. Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.

1.4 DUTIES OF GATEMAN:

1. ALERTNESS:

The gateman shall be alert and be prepared to take immediate action, should danger be apprehended. Keys of the gate shall be in his personal custody.

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/PWAY.

3. POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gateman will stand in the manner indicated below:

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- iii) In night time, gateman shall hold lighted hand signal lamp with white light facing the track.
- iv) He shall keep the whistle slung around his neck from a cord.

4. ROUTING DUTIES OF GATEMAN:

- i) Gateman shall ensure that red flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like

hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.

- vi) Gateman shall also prepared to repeat any signal which guard may give to Loco Pilot on walkie-talkie or in any other way.
- vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- x) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xv) Gateman shall see that the channel for the flange of the wheel is kept clean.
- xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- xviii) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
- xix) Gateman shall prevent trespassing by persons or cattle to the maximum extent.

5. ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

In case gateman observes anything unusual with a passing train, he shall take following action:

- i) He shall take prompt action to warn the Loco Pilot / guard of the passing train by

showing red flag by day and red light by night.

- ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot / guard fails to take notice, gateman shall immediately inform the Station Master, If connected on telephone, to take appropriate action, under exchange of private number.
- iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavour to attract the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

5. ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if any, in the 'ON' position.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connected by telephone, regarding the defects / obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under:-

a) On double line section:

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and a red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

- v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) On single line section:

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the LP of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall light up and fix the fusee to warn the LP and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

c) Other action to be taken by Gateman:

- i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (A) and (B) above.
- ii) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers

or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.

- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the nearest Station Master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or through means available.

1.6 ENGINEERING ITEMS:

Please see para 916, 918, 919 of IRPWM for visibility requirements at level crossings, provision of speed breakers on the approaching roads of level crossings and census of traffic at level crossings.

ANNEXURE-V**WORKING INSTRUCTIONS OF RV-288**

(General Instructions are common for all types of Manned Level Crossing Gates)

1. Mode of Operation:

- i) The normal position of the LC gate being closed to road traffic. It should be in closed condition against road traffic, except when it is opened for passage of road traffic over the level crossing, subject to conditions prescribed below.
- ii) The SM before permitting each train enter into the block section, shall ask gateman on the telephone by giving a PN whether gate is closed against road traffic for the passage of train. The gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a PN to the SM in assurance of gate being closed and locked against road traffic.
- iii) The SM shall not permit any train to enter the block section unless he is assured if the closure and locking of the gate by the gateman supported by exchange of PN.
- iv) When the gateman desires to open the gate for passage of road traffic he should ensure that:
 - a) He has not exchanged any PN with the station for any train or
 - b) If he has exchanged PN with the SM, the whole of the train with last vehicle indicator has passed over the LC gate and the SM has not exchanged PN with him for any other movement immediately in rear of the train or on the adjacent lines.
- v) Before opening the gate for road traffic, he shall display banner flag/ danger signal at either end of the track at a distance of 5mts away from the gate. Then he shall open the gate for passing of road traffic by keeping red flag/ red hand signal lamp ready in his hand to stop approaching train if any.

2. Failure of Telephonic Communication:

When Telephonic Communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted.

- (i) Station Master at the dispatching end shall issue a caution order to the driver of the departing train.
- (ii) The caution order shall advise the Loco pilot to whistle continuously and approach the gate cautiously.
- (iii) The Loco pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, Loco pilot should be prepared to stop short of the gate and depute his Assistant Loco pilot to see the condition of the gate. If the gate is closed, the Assistant Loco pilot will give the all right signal and if the gate is not closed the Assistant Loco pilot must close the gate and then give all right signal. In the absence of the Assistant Loco pilot, the Loco pilot may take the assistance of Assistant Guard / Guard.
- (iv) In case of an approaching train, the Station Master shall advise the Station

Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.

- (v) The Station Master at the dispatching end shall then issue a caution order to the diver before dispatching a train in the block section from his end.
- (vi) Station Master shall also advise the gateman through gangman/patrolman or Loco pilot of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

3. **Failure of Lifting Barriers**

- (i) When the gate cannot be closed due to failure of lifting barriers, the gateman will immediately inform the Station Master on duty, under exchange of private number, and ensure that lifting barriers do not foul the track.
- (ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- (iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.
- (iv) After securing the gate against road traffic, he shall show green hand signal flag by day and green light by night to the driver of the approaching train.
- (v) Station Master on duty shall issue caution order to the Loco pilot of a departing train.
- (vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the driver before dispatching a train in the block section from his end.
- (vii) He should also advise maintenance staff responsible for maintenance of the lifting barriers to rectify the same at the earliest.
- (viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers and issue reconnection / fit memo for the same.

4. **Obstruction at the Gate:**

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this

purpose.

- (ii) Immediately after this, the gateman shall advise the Station Master on duty, regarding defects/obstruction at the gate, under exchange of private number.
- (iii) Station Master on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- (iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.
- (v) He shall then rush with detonators, fusee and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no.1.5(5).
- (vi) Thereafter he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been ensured by the gateman that the road vehicle or the lifting barriers are not fouling the track.
- (viii) The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstruction.
- (ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- (x) Station Master shall then issue a caution order to drivers of all trains to proceed cautiously, and pass the gate on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- (xi) Gateman shall secure the gate against road traffic by means of safety cabins and padlocks and there after exhibit green hand signal if the gate is not obstructed.
- (xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

5. **Obstruction on the Track near Level Crossing:** If there is a rail fracture or obstruction on the track due to falling of tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.5 above. If the obstruction fouls the Level Crossing Gate he must keep the gates closed against road traffic till the track is cleared of the obstruction.

WORKING RULES OF PARVATIPURAM STATION LEVEL CROSSING GATES

1. GENERAL:

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

Following details shall be maintained at all manned level crossing gates:

1	No. of Level Crossing Gate	:	RV-284
2	Engineering or Traffic gate	:	Engineering Gate –‘C’ Class
3	Under control of station master or permanent way inspector.	:	SSE(P)/PVP
4	Location at Km.	:	391/5-7
5	At station	:	---
6	In between station	:	PVP-SNM
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Close to Road Traffic
10	Interlocked/Non-Interlocked	:	Non-Interlocked
11	Means of Interlocking	:	----
12	Provision of gate signal at Km.	:	UP Line: NIL DN Line: NIL
13	Signalling arrangement	:	NIL
14	Means of communication Telephone	:	Telephone Connected with PVP Station
15	Width of the level crossing gate	:	7.5 M
16	Type of road	:	OTHER
17	Name of road	:	VILLAGE
18	Metalled /Non-Metalled	:	Metalled
19	Approach road	:	C.C BLOCK
20	Width of the road	:	5.5 M
21	Angle of road crossing (in case of the SKEW gates)	:	90 ⁰
22	Road gradients (if any)	:	[a]North/East Side : 1 in 30 [b]South/West Side : 1 in 30
23	Road alignment (straight/Curve)	:	[a] North/East Side : Straight [b] South/East Side : Straight
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Lifting Barriers
26	Length of check rails	:	9.5 M
27	Road surface in between level crossing gates.	:	Level
28	Length of rumble strip/ speed breakers	:	Provided
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided
31	TVU	:	154 on 12-26-2015
32	Census next due on	:	2018
33	Demarcation for placement of detonators	:	Provided

- 34 No. of gateman working : 2
 35 Nearest Railway Medical Assistance : RGDA
 36 Nearest Private Medical : Parvatipuram
 Assistance available (if any)
 37 List of equipment available (Yes/No) : Yes

1.2 **EQUIPMENT:**

		Items	<u>Quantity / Numbers</u>
	1.	Hand Signal Lamp Tri Colour	5 Nos.
	2.	Hand Signal Flag Green	1 No with mounted stick
	3.	Hand Signal Flag Red	6 Nos.
	4.	Banner Flag Red	5 Nos.
	5.	Posts for exhibiting red banner flag	4 Nos.
	6.	Spare chains with padlocks	2 with stop marker
	7.	Detonators	10 in each case
	8.	Gate lamps	2 Nos.
	9.	Tommy Bar	1 No.
	10.	Mortar Pan	1 No.
	11.	Spade / Fowrah	1 No.
	12.	Rammer	1 No (In case of asphalted road this may not be provided)
	13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
	14.	Tin case for flags	1 No.
	15.	Can for oil	1 No.
	16.	Water port / Bucket	1 No.
	17.	Canister for Muster Roll	1 No.
	18.	Set of spare spectacles of gateman wearing glasses	1 No.
	19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
	20.	Basket	1 No.
	21.	Whistle	1 No.
	22.	Wall Clock	1 No.
	23.	A small size chain for use in case of failure of gate boom/Leaf Lock	1 No.

1.3 **RECORDS TO BE KEPT AT GATE LODGE:**

In addition to the above equipment, following records shall also be kept at the gate lodge.

1. Gate Working Instructions in Hindi / English.
2. Gate Working Instructions in local vernacular language.
3. Gateman Rule Book in local vernacular language
4. List for tools and books.
5. Duty Roster.

6. Certificate for working as gateman.
7. Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.

1.4 DUTIES OF GATEMAN:

1. ALERTNESS:

The gateman shall be alert and be prepared to take immediate action, should danger be apprehended. Keys of the gate shall be in his personal custody.

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/Pway

3. POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gateman will stand in the manner indicated below:

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- iii) In night time, gateman shall hold lighted hand signal lamp with white light facing the track.
- ii) He shall keep the whistle slung around his neck from a cord.

4. ROUTING DUTIES OF GATEMAN:

- i) Gateman shall ensure that red flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like

- hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket, vacuum cylinder or any other situation endangering safe running of trains.
- vi) Gateman shall also prepared to repeat any signal which guard may give to Loco Pilot on walkie-talkie or in any other way.
 - vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
 - viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
 - ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
 - x) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
 - xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
 - xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
 - xiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
 - xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
 - xv) Gateman shall see that the channel for the flange of the wheel is kept clean.
 - xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
 - xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
 - xviii) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
 - xix) Gateman shall prevent trespassing by persons or cattle to the maximum extent.

5. ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

In case gateman observes anything unusual with a passing train, he shall take following action:

- i) He shall take prompt action to warn the Loco Pilot / guard of the passing train by

showing red flag by day and red light by night.

- ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.
- iii) If Loco Pilot / guard fails to take notice, gateman shall immediately inform the Station Master, If connected on telephone, to take appropriate action, under exchange of private number.
- iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavour to attract the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

6. ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if any, in the 'ON' position.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connected by telephone, regarding the defects / obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under:-

a) On double line section:

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and a red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.

- v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) On single line section:

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the LP of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall light up and fix the fusee to warn the LP and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

c) Other action to be taken by Gateman:

- i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (A) and (B) above.
- ii) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers

or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.

- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the nearest Station Master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or through means available.

1.6 ENGINEERING ITEMS:

Please see para 916, 918, 919 of IRPWM for visibility requirements at level crossings, provision of speed breakers on the approaching roads of level crossings and census of traffic at level crossings.

ANNEXURE-V**WORKING INSTRUCTIONS OF RV-284.**

(General Instructions are common for all types of Manned Level Crossing Gates)

1 Mode of Operation:

- (i) The normal position of the LC gate being closed to road traffic. It should be in closed condition against road traffic, except when it is opened for passage of road traffic over the level crossing, subject to conditions prescribed below.
- (ii) The SM before permitting each train enter into the block section, shall ask gateman on the telephone by giving a PN whether gate is closed against road traffic for the passage of train. The gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a PN to the SM in assurance of gate being closed and locked against road traffic.
- (iii) The SM shall not permit any train to enter the block section unless he is assured if the closure and locking of the gate by the gateman supported by exchange of PN.
- (iv) When the gateman desires to open the gate for passage of road traffic he should ensure that:
 - i. He has not exchanged any PN with the station for any train or
 - ii. If he has exchanged PN with the SM, the whole of the train with last vehicle indicator has passed over the LC gate and the SM has not exchanged PN with him for any other movement immediately in rear of the train or on the adjacent lines.
- (v) Before opening the gate for road traffic, he shall display banner flag/ danger signal at either end of the track at a distance of 5mts away from the gate. Then he shall open the gate for passing of road traffic by keeping red flag/ red hand signal lamp ready in his hand to stop approaching train if any.

3 Failure of Telephonic Communication:

When Telephonic Communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted.

- (i) Station Master at the dispatching end shall issue a caution order to the driver of the departing train.
- (ii) The caution order shall advise the Loco pilot to whistle continuously and approach the gate cautiously.
- (iii) The Loco pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, Loco pilot should be prepared to stop short of the gate and depute his Assistant Loco pilot to see the condition of the gate. If the gate is closed, the Assistant Loco pilot will give the all right signal and if the gate is not closed the Assistant Loco pilot must close the gate and then give all right signal. In the absence of the Assistant Loco pilot, the Loco pilot may take the assistance of Assistant Guard / Guard.
- (iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.

failed.

- (v) The Station Master at the dispatching end shall then issue a caution order to the driver before dispatching a train in the block section from his end.
- (vi) Station Master shall also advise the gateman through gangman/patrolman or Loco pilot of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4 Failure of Lifting Barriers

- (i) When the gate cannot be closed due to failure of lifting barriers, the gateman will immediately inform the Station Master on duty, under exchange of private number, and ensure that lifting barriers do not foul the track.
- (ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- (iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.
- (iv) After securing the gate against road traffic, he shall show green hand signal flag by day and green light by night to the driver of the approaching train.
- (v) Station Master on duty shall issue caution order to the Loco pilot of a departing train.
- (vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the driver before dispatching a train in the block section from his end.
- (vii) He should also advise maintenance staff responsible for maintenance of the lifting barriers to rectify the same at the earliest.
- (viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers and issue reconnection / fit memo for the same.

5 Obstruction at the Gate:

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on the posts provided at both ends of the gate, for this purpose.
- (ii) Immediately after this, the gateman shall advise the Station Master on duty, regarding defects/obstruction at the gate, under exchange of private number.

- (iii) Station Master on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- (iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.
- (v) He shall then rush with detonators, fusee and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no.1.5(5).
- (vi) Thereafter he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been ensured by the gateman that the road vehicle or the lifting barriers are not fouling the track.
- (viii) The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstruction.
- (ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- (x) Station Master shall then issue a caution order to drivers of all trains to proceed cautiously, and pass the gate on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- (xi) Gateman shall secure the gate against road traffic by means of safety cabins and padlocks and there after exhibit green hand signal if the gate is not obstructed.
- (xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

6 Obstruction on the Track near Level Crossing:

If there is a rail fracture or obstruction on the track due to falling of tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.5 above. If the obstruction fouls the Level Crossing Gate he must keep the gates closed against road traffic till the track is cleared of the obstruction.

WORKING RULES OF PARVATIPURAM STATION LEVEL CROSSING GATES

1. GENERAL:

1.1 DESCRIPTION OF THE LEVEL CROSSING GATE:

Following details shall be maintained at all manned level crossing gates:

1	No. of Level Crossing Gate	:	RV-279
2	Engineering or Traffic gate	:	Engineering Gate –‘C’ Class
3	Under control of station master or permanent way inspector.	:	SSE(P)/PVP
4	Location at Km.	:	383/29-31
5	At station	:	---
6	In between station	:	PVP-GMDA
7	BG/MG/NG	:	BG
8	Single line/double line/multiple line	:	Double line
9	Normal position	:	Close to Road Traffic
10	Interlocked/Non-Interlocked	:	Non-Interlocked
11	Means of Interlocking	:	----
12	Provision of gate signal at Km.	:	UP Line: NIL DN Line: NIL
13	Signalling arrangement	:	NIL
14	Means of communication Telephone	:	Telephone Connected with PVP Station
15	Width of the level crossing gate	:	7.5 M
16	Type of road	:	OTHER
17	Name of road	:	SAMITHIEARTH
18	Metalled /Non-Metalled	:	Non-Metalled
19	Approach road	:	Kastcha
20	Width of the road	:	7.5 M
21	Angle of road crossing (in case of the SKEW gates)	:	90 ⁰
22	Road gradients (if any)	:	[a]North/East Side : 1 in 30 [b]South/West Side : 1 in 30
23	Road alignment (straight/Curve)	:	[a] North/East Side : Straight [b] South/East Side : Straight
24	Provision of height gauges	:	Provided
25	Type of barriers	:	Lifting Barriers
26	Length of check rails	:	9.5 M
27	Road surface in between level crossing gates.	:	Level
28	Length of rumble strip/ speed breakers	:	Provided
29	Road signs	:	Provided
30	Speed breakers indication board	:	Provided
31	TVU	:	130796 on 10.03.2018
32	Census next due on	:	2021
33	Demarcation for placement of detonators	:	Provided
34	No. of gateman working	:	2

- 35 Nearest Railway Medical Assistance : RGDA
 36 Nearest Private Medical : Parvatipuram
 Assistance available (if any)
 37 List of equipment available (Yes/No) : Yes

1.2 **EQUIPMENT:**

	Items	<u>Quantity / Numbers</u>
1.	Hand Signal Lamp Tri Colour	5 Nos.
2.	Hand Signal Flag Green	1 No with mounted stick
3.	Hand Signal Flag Red	6 Nos.
4.	Banner Flag Red	5 Nos.
5.	Posts for exhibiting red banner flag	4 Nos.
6.	Spare chains with padlocks	2 with stop marker
7.	Detonators	10 in each case
8.	Gate lamps	2 Nos.
9.	Tommy Bar	1 No.
10.	Mortar Pan	1 No.
11.	Spade / Fowrah	1 No.
12.	Rammer	1 No (In case of asphalted road this may not be provided)
13.	Pick Axe	1 No (In case of asphalted road this may not be provided)
14.	Tin case for flags	1 No.
15.	Can for oil	1 No.
16.	Water port / Bucket	1 No.
17.	Canister for Muster Roll	1 No.
18.	Set of spare spectacles of gateman wearing glasses	1 No.
19.	Board demarcating protection of level crossing gate diagram in case of obstruction on gate	1 No.
20.	Basket	1 No.
21.	Whistle	1 No.
22.	Wall Clock	1 No.
23.	A small size chain for use in case of failure of gate boom/Leaf Lock	1 No.

1.3 **RECORDS TO BE KEPT AT GATE LODGE:**

In addition to the above equipment, following records shall also be kept at the gate lodge.

1. Gate Working Instructions in Hindi / English.
2. Gate Working Instructions in local vernacular language.
3. Gateman Rule Book in local vernacular language
4. List for tools and books.
5. Duty Roster.
6. Certificate for working as gateman.

7. Bio-data particulars of Gatemen, including date of passing vision test, initial / refresher course, safety camp etc.
8. Accident Register.
9. Record of last census of road traffic at level crossing gate.
10. Public Complaint Book.
11. Inspection Book.

1.4 DUTIES OF GATEMAN:

1. ALERTNESS:

The gateman shall be alert and be prepared to take immediate action, should danger be apprehended. Keys of the gate shall be in his personal custody.

2. COMPETENCY :

Gateman working at this gate should have competency certificate applicable to perform duty at this gate issued by the sectional JE/Pway.

3. POSITION DURING PASSAGE OF TRAINS:

During passage of trains, gateman will stand in the manner indicated below:

- i) Gateman will stand alternatively in front of the gate-lodge facing the approaching train.
- ii) In day time, gateman shall hold red and green flags furled up on separate sticks in right and left hands respectively.
- iii) In night time, gateman shall hold lighted hand signal lamp with white light facing the track.
- v) He shall keep the whistle slung around his neck from a cord.

4. ROUTING DUTIES OF GATEMAN:

- i) Gateman shall ensure that red flag is placed across the track whenever the gate is kept in open condition for passage of road vehicles.
- ii) Gateman shall ensure that gate lamps and lamps of all gate signals are lighted and kept burning continuously from sunset to sunrise.
- iii) Gateman shall perform his duties strictly according to the duty roster and shall not leave the gate unless reliever arrives and takes charge of it. However, it is necessary to leave the gate in an emergency, he must close and lock the gates against road traffic, before leaving the gate.
- iv) Except where otherwise prescribed under Special Instructions, he shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.
- v) Gateman shall watch all passing trains and keep sharp look out for any unusual like hot axle, hanging chains, hanging battery, and vehicle / wagons / train / battery box on fire, shifted load, falling material like brake blocks, brake beams, safety bracket,

vacuum cylinder or any other situation endangering safe running of trains.

- vi) Gateman shall also prepared to repeat any signal which guard may give to Loco Pilot on walkie-talkie or in any other way.
- vii) If lifting barriers get damaged or becomes out of order, the gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
- viii) Gateman shall report to the nearest Station Master, Gangmate or Permanent Way Inspector any defect in his gate or apparatus pertaining to it, as soon as possible.
- ix) In the event of gate signal becoming defective the gateman shall maintain the signal in the 'ON' position even by disconnecting the signal or the wire if necessary.
- x) At the gate whose signal have become defective, the gateman shall close and lock the lifting barriers on sighting a train and hand signal or pilot the train past the defective signal. In such case he should inform the Loco Pilot to report the defect at the next station.
- xi) Gateman shall wear badge and prescribed uniform while on duty at level crossing gate.
- xii) Gateman shall ensure that he is having competency certificate in his possession while on duty.
- xiii) Gateman shall work the gate as per Gate Working Instructions and remain well conversant with these instructions.
- xiv) Gateman shall ensure that equipment supplied at the gate is in good order and ready for immediate use.
- xv) Gateman shall see that the channel for the flange of the wheel is kept clean.
- xvi) Gateman shall keep the road surface well watered and rammed in case of unmetalled roads.
- xvii) Gateman must be vigilant to see that inconvenience to road users due to closure of gates should be to the minimum possible extent.
- xviii) Gateman on electrified section shall watch that road vehicles / animals passing from gate are within the height loading gauge provided on either side of the level crossing gate.
- xix) Gateman shall prevent trespassing by persons or cattle to the maximum extent.

5. ACTION IN CASE OF UNUSUAL OCCURRENCE ON TRAIN:

In case gateman observes anything unusual with a passing train, he shall take following action:

- i) He shall take prompt action to warn the Loco Pilot / guard of the passing train by showing red flag by day and red light by night.
- ii) He shall simultaneously try to draw the attention of the Loco Pilot / guard by

whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means.

- iii) If Loco Pilot / guard fails to take notice, gateman shall immediately inform the Station Master, If connected on telephone, to take appropriate action, under exchange of private number.
- iv) In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.
- v) He shall endeavour to attract the attention of the Loco Pilot / guard by whistling continuously, shouting, gesticulating and by raising both hands vertically above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.
- vi) In case the train does not stop, gateman shall immediately inform the Station Master, if connected on telephone, to take appropriate action, under exchange of private number.

5. **ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:**

- i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if any, in the 'ON' position.
- ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master on duty, if connected by telephone, regarding the defects / obstructions at the gate, under exchange of private number.
- iii) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.

The gateman shall protect the line as under:-

a) **On double line section:**

- i) If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and a red light by night on the other line 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction,

picking up the intermediate detonator on his way back.

- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the Loco Pilot of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall to warn the Loco Pilot and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

b) On single line section:

- i) Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.
- ii) Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away from the site of obstruction.
- iii) Gateman shall then proceed to protect the gate along with detonators, fuses and red flag by day and red hand signal lamp by night.
- iv) Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.
- v) Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.
- vi) Having returned to the gate, he must then take steps to remove the obstruction and warn the LP of the approaching train.
- vii) In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.
- viii) Thereafter, he shall light up and fix the fusee to warn the LP and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.

c) Other action to be taken by Gateman:

- i) At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (A) and (B) above.
- ii) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.

- iii) He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the nearest Station Master or Permanent Way Inspector regarding the particulars and obstructions at the level crossing gate, through messenger or through means available.

1.6 ENGINEERING ITEMS:

Please see para 916, 918, 919 of IRPWM for visibility requirements at level crossings, provision of speed breakers on the approaching roads of level crossings and census of traffic at level crossings.

ANNEXURE-V**WORKING INSTRUCTIONS OF RV-279**

(General Instructions are common for all types of Manned Level Crossing Gates)

1. Mode of Operation:

- i) The normal position of the LC gate being closed to road traffic. It should be in closed condition against road traffic, except when it is opened for passage of road traffic over the level crossing, subject to conditions prescribed below.
- ii) The SM before permitting each train enter into the block section, shall ask gateman on the telephone by giving a PN whether gate is closed against road traffic for the passage of train. The gateman only after ensuring that the gate is actually closed and locked against road traffic shall give a PN to the SM in assurance of gate being closed and locked against road traffic.
- iii) The SM shall not permit any train to enter the block section unless he is assured if the closure and locking of the gate by the gateman supported by exchange of PN.
- iv) When the gateman desires to open the gate for passage of road traffic he should ensure that:
 - a. He has not exchanged any PN with the station for any train or
 - b. If he has exchanged PN with the SM, the whole of the train with last vehicle indicator has passed over the LC gate and the SM has not exchanged PN with him for any other movement immediately in rear of the train or on the adjacent lines.

Before opening the gate for road traffic, he shall display banner flag/ danger signal at either end of the track at a distance of 5mts away from the gate. Then he shall open the gate for passing of road traffic by keeping red flag/ red hand signal lamp ready in his hand to stop approaching train if any.

3. Failure of Telephonic Communication:

When Telephonic Communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted.

- (i) Station Master at the dispatching end shall issue a caution order to the driver of the departing train.
- (ii) The caution order shall advise the Loco pilot to whistle continuously and approach the gate cautiously.
- (iii) The Loco pilot shall be instructed to pass the gate cautiously, on being hand signalled by the gateman. If hand signal is not seen, Loco pilot should be prepared to stop short of the gate and depute his Assistant Loco pilot to see the condition of the gate. If the gate is closed, the Assistant Loco pilot will give the all right signal and if the gate is not closed the Assistant Loco pilot must close the gate and then give all right signal. In the absence of the Assistant Loco pilot, the Loco pilot may take the assistance of Assistant Guard / Guard.

- (iv) In case of an approaching train, the Station Master shall advise the Station Master at the dispatching end, under exchange of private number, that the telephone at the gate has failed.
- (v) The Station Master at the dispatching end shall then issue a caution order to the diver before dispatching a train in the block section from his end.
- (vi) Station Master shall also advise the gateman through gangman/patrolman or Loco pilot of the first train that the telephone has become defective.
- (vii) He should also advise S&T staff responsible for maintenance of the telephone to rectify the same at the earliest.
- (viii) Normal working will be resumed only after S&T staff rectify the telephone and issue reconnection / fit memo for the same.

4. **Failure of Lifting Barriers:**

- (i) When the gate cannot be closed due to failure of lifting barriers, the gateman will immediately inform the Station Master on duty, under exchange of private number, and ensure that lifting barriers do not foul the track.
- (ii) He shall immediately fix red banner flag by day and red light by night on the post at that end first from which the train is approaching and then at the other end.
- (iii) Gateman shall secure the gate against road traffic by means of safety chains and padlocks.
- (iv) After securing the gate against road traffic, he shall show green hand signal flag by day and green light by night to the driver of the approaching train.
- (v) Station Master on duty shall issue caution order to the Loco pilot of a departing train.
- (vi) He shall also advise the Station Master at the dispatching end, under exchange of private number, to similarly issue a caution order to the driver before dispatching a train in the block section from his end.
- (vii) He should also advise maintenance staff responsible for maintenance of the lifting barriers to rectify the same at the earliest.
- (viii) Normal working will be resumed only after maintenance staff rectify the lifting barriers and issue reconnection / fit memo for the same.

5. **Obstruction at the Gate:**

- (i) If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall immediately fix red banner flag by day and red lamp by night on posts provided at both ends of the gate, for this purpose.

- (ii) Immediately after this, the gateman shall advise the Station Master on duty, regarding defects/obstruction at the gate, under exchange of private number.
- (iii) Station Master on duty shall be advised to put the reception/departure signals back to 'ON' position, if taken 'OFF' for a train.
- (iv) If there is no response from the Station Master after two or three attempts, he shall first protect the gate and then inform on phone.
- (v) He shall then rush with detonators, fusee and red flag by day and red hand signal lamp by night in the direction of the approaching train and protect the gate as stipulated in General Instruction for duties of gateman under item no.1.5(5).
- (vi) Thereafter he shall protect the gate from the other direction also.
- (vii) He shall note down the particulars of the road vehicle, name of the driver, owner and relay these details to the Station Master who shall not start the train unless he has been ensured by the gateman that the road vehicle or the lifting barriers are not fouling the track.
- (viii) The Station Master shall also inform the Station Master at the dispatching end, under exchange of private number, asking him not to dispatch any train in the block section from his end, until the track has been cleared of all obstruction.
- (ix) After the track has been cleared of all obstructions the gateman shall inform the Station Master accordingly, under exchange of private number.
- (x) Station Master shall then issue a caution order to drivers of all trains to proceed cautiously, and pass the gate on green hand signal of the gateman, if the gate is broken, but is clear of any obstruction.
- (xi) Gateman shall secure the gate against road traffic by means of safety cabins and padlocks and there after exhibit green hand signal of the gate is not obstructed.
- (xii) Station Master shall advise maintenance staff responsible for maintaining the lifting barriers to repair the same at the earliest.
- (xiii) Normal working will be resumed only after maintenance staff rectify the defective lifting barriers and issue reconnection / fit memo for the same.

6. Obstruction on the Track near Level Crossing:

If there is a rail fracture or obstruction on the track due to falling of tree, fouling by road vehicle or derailment which is visible to the gateman, the gateman and Station Master will adopt the procedure given under item No.5 above. If the obstruction fouls the Level Crossing Gate he must keep the gates closed against road traffic till the track is cleared of the obstruction.

DETAILS OF SIGNALLING AND INTERLOCKING INSTALLATIONS, INSTRUCTIONS FOR WORKING THEM NORMALLY AND IN EMERGENCIES ETC, INCLUDING POWER SUPPLY ARRANGEMENTS.

1.1 BRIEF DESCRIPTION OF THE SIGNALLING AND INTERLOCKING INSTALLATIONS:

This is a “B” Class Station with standard-III interlocking (with isolation). The points and signals are power operated from a composite ‘DOMINO TYPE’ full-fledged panel installed in the SS/SM office. This station is equipped with panel operated MACLS. The SGE type double Line lock and Block Instruments are provided in the SS/SM panel room for section PVP-GMDA and PVP-SNM adjacent to the panel.

1.2 DESCRIPTION OF PANEL:

The yard lay-out is depicted in the panel board and is fixed parallel to the track so that when the SM on duty faces, the Yard drawing on the panel corresponds to the actual field lay out in either direction.

1.3 POINT BUTTONS:

Each point is provided with Push buttons (Black in color) for individual operation of Points. For operation of point to normal/reverse position, Point group push buttons (black with red dot) are provided. Point button and Point Group button normal/reverse shall be pressed at the same time for operation of point to required position. To indicate the position of point, a white steady strip on Normal direction to indicate normal position of point, and a white steady strip on Reverse direction to indicate Reverse position of point.

1.4 When a point is set and locked correctly in normal position, a white steady strip indication on normal point zone appears suggesting that the point is in normal position and locked in its position.

1.5 When a point is set and locked correctly in Reverse position, a white steady strip indication on reverse point zone appears suggesting that the point is in Reverse position and locked in its position.

1.6 When the point is operated from reverse to normal position, a white strip indication on normal point zone will start flashing till the concerned point is set and locked in normal position. When the point is operated from normal to reverse, a white strip indication on reverse point zone will start flashing till the concerned point is set and locked in reverse position.

1.7 OPERATION OF POINTS:

Points are operated to normal or Reverse by pressing individual point button in conjunction with the point group button there by the white strip indication on normal point zone or reverse point zone as the case may be till the points are set to normal or reverse position and locked. Then the white steady strip indication on normal point zone and white steady strip indication on reverse point zone will appear as the case may be. During the automatic route setting of the train operation, the same indication will glow.

1.8 All running line points are operated by Electric point machine.

2.0 The course for non-setting of the point in the desired position has to be checked UP by the SS/Dy.SS on duty according to G & SR 3.68.01(c) and if there is a defect other than obstruction the point has to be considered as defective and action shall be taken for clamping and pad locking these points in the desired position by the SS/Dy.SS on duty himself for all trains according to SR 3.69.03(c).

2.1 DESCRIPTION OF POINTS:

SN	Point Button No.	Color	Description
1	17	Black	Cross over point between UP & DN main line at Rainur end
2	19	Black	Cross over point between DN main & common loop line at Rainur end
3	21	Black	Cross over point between UP main & UP loop line at Rainur end
4	18	Black	Cross over point between UP & DN main line at VZM end
5	20	Black	Cross over point between DN main & DN loop line at VZM end
6	22	Black	Cross over point between UP main & UP loop line at VZM end
7	Point groUP button (Normal)	Black with red dot.	Common button for normal operation of points.
8	Point GroUP Button (Reverse)	Black with Red dot.	Common button for Reverse operation of points.

3.0 **SIGNAL BUTTONS:**

SN	Button No.	Color	Description
1	C1	Red with white dot	UP Calling 'ON' signal for Line no. 1,3 & 4.
2	S1	Red	UP Home signal for line no.1, 3&4.
3	C2	Red with white dot	DN calling 'ON' signal for line no. 1& 2.
4	S2	Red	DN Home signal for line no.1&2.
5	S5	Red	UP loop starter for line no.4
6	S6	Red	DN common signal for line no.1
7	S7	Red	DN Common loop starter for line no. 1
8	S9	Red	UP main starter for line no. 3.
10	S10	Red	DN main starter for line no. 2
11	S11	Red	UP adv. Starter.
12	S12	Red	DN Advance starter
13	SH3	Yellow	Shunt signal for line no. 1 & 2.
14	SH4	Yellow	Shunt signal for line no. 1, 2, 3 & 4.
15	S14	Red	DN IB Home signal of PVP
16	S13	Red	UP IB Home signal of PVP

3.1 **SIGNAL INDICATION:**

The aspect of signal as obtained at any time is shown on the panel on the Signal indication (along side of the track).

4.0 **ROUTE BUTTONS:**

Route buttons are provided separately on each running line on the panel for indication of route (viz L1UN, L1UN1, L2UN, L3UN, L4UN, and L4UN1). Common route buttons are also provided for taking off starters 11 AT UN, 12 AT UN. An individual route button is provided for taking off advance starter 12 UN, 11 UN. For clearing the signal, it is necessary to operate the signal button and the concerned route button concurrently.

4.1 **DESCRIPTIONS OF BUTTONS:**

S.N	Button No.	Color	Description
1	L1 UN	White	Common route button for UP & DN Home signal and UP & DN Calling-On signal for line no.1 setting overlap on UP & DN main line.

2	L1 UN1	White with black dot	Common route button for UP & DN Home signal and UP & DN Calling-On signal for line no.1 setting overlap to over-run line and route button for DN. Shunt signal no. 4 & UP SH No-3 for line no. 1.
3	L2 UN	White	Common route button for DN Home signal and Calling-On signal for line no.2 setting overlap on DN Main line and route button for DN shunt signal no. 4 & UP SH No3 for line no. 2.
4	L3 UN	White	Common route button for UP Home signal and Calling On signal for line no.3 setting overlap on UP main line for DN shunt signal no. 4 for line no. 3.
5	L4 UN	White	Common route button for UP Home signal and UP Calling On signal for line no. 4 setting overlap on DN main line respectively.
6	L4 UN1	White with black dot	Common route button for UP Home signal and UP Calling-On signal for line no. 4 setting overlap on sand hump/ over run line and for DN shunt signal no. 4 for line no. 4.
7	12 UN	White	Route button for DN advance starter.
8	11UN	White	Route button for UP advance starter.
9	12ATUN	White	Route button for DN starters 6 and 10.
10	11ATUN	White	Route button for UP starters 5, 7& 9.
11	Group (Trans)	White with	Common Trans button for crank handle and siding L.C.Gate control.
12	Group Released	White with	Common release button for crank handle and siding L.C.Gate control.
13	CH-1	Blue	Points no. 19&20
14	CH-2	Blue	Points no. 21& 22
15	CH-3	Blue	Points no. 17
16	CH-4	Blue	Points no. 18
17	29 LXN	Chocolat	L.C.gate No. 29 control
18	Control 27	Black	Control for Hot Axle siding
19	30 LXN	Chocolat	L.C.gate No. 30 control
20	Emergency gate	Chocol ate	Emergency release of L.C.gate no. 29.
21	Emergency gate release 30	Chocol ate with	Emergency release of L.C.gate no. 30.
22	Signal lamp	Red with	For acknowledge the signal lamp failure / point failure
23	Button Held Ack.	White with	To be pressed to stop the buzzer in case of any button held.

24	Signal cancel lation	Red	For cancellation of signal this is a common button to be pressed in conjunction with the intended signal button for which cancellation is required.
25	Emergency of Point Operation	Black with red dot	For operation of points in the event of failure of Track circuit/Axle counter.

5.0 (A) **POWER SUPPLY ARRANGEMENT FOR THE SIGNALLING INSTALLATION**

Power signalling and interlocking installations and the ancillary field units are fed from the following sources of power Supply.

- i) Normally Supply from UP AT/DN AT connected to OHE Traction distribution [230 V 50 Hz].
- ii) Stand by Supply from Andhra Pradesh State Electricity Board (APSEB) [Single phase 230V-50Hz].
- iii) Normal power Supply [Single phase 230V-50Hz] to the Signalling & Interlocking installation at the station is drawn from the traction power sources. Whenever traction power Supply fails SS/SM on duty shall operate the Auto change over switch provided in the CLS power panel at SM's room connecting the power Supply from the healthy sources to the installation.

The SS/SM on duty however maintain the record of power failures either of the traction Supply or local Supply and he must promptly report the failure of any one or both the power sources immediately through the section controller and to the concerned Electrical Staff and S&T maintenance staff.

- a) Auto change over switch is provided in the SM's room with the three power supplies viz UP AT, DN AT and local power Supply for changing the switch to the required Supply position. The availability of the Supply is indicated by luminous indicator above the circuit breaker for each Supply.
- b) Normally the switch will be kept towards UP AT or DN AT position. Whenever the power block is to be given on the line, on duty SS/SM must ascertain the power is available on the other AT and change over the switch to desired position e.g if power block is to be given on the UP line, DN AT must be available and vice versa.
- c) In case of failure of one of the AT Supply without any power block, on duty SS/SM has to check whether the Miniature Circuit Breaker has tripped. (Three Miniature Circuit Breakers are provided in the changeover switch board, one for each Supply

and their normal position is UP and when tripped, it goes to DN). In case of failure of both AT supplies without any power block, the local supplies shall be utilized by operating the change over switch. If the Miniature Circuit Breaker is tripping, even after resetting, no attempts shall be made to hold it by any other means and a message shall be given to the AEE/GEN and CTFO/GEN for prompt rectification.

- d) Whenever there is a failure of power Supply in one AT, the on duty SS/SM shall take prompt action to inform to all concerned for the rectification, The on duty SS/SM himself, during his daily checks, shall test the availability of power supplies on both AT's and make entry in station dairy duly initiating action for rectification of failure, if any.

5.0 (B) WORKING OF INTEGRATED POWER SUPPLY [IPS],INDICATIONS & ACTION TO BE TAKEN BY SS/DY.SS ON DUTY

- i) Power Supply to the signalling installation is fed through IPS installed in the S&T power Supply room. The IPS is normally fed through UP AT/DN AT traction power selected by SS/SM on duty. Standby power Supply is through APSEB local Supply. Auto Change over Switch is provided in the SM's room for selection of output of either of the traction power supplies or local power Supply. The available traction/local Supply is fed to the IPS.
- ii) Auto Change over Switch [which can be operated manually also keeping it in Manual mode] which has been provided in SM/SS's room will automatically switch over to the other power Supply mode in the absence of any power Supply i.e UP AT/DN AT /Local Power Supply.
- iii) The IPS system is connected with Battery as a back-UP power source for safe working during transition of power, in case when there is no power Supply of 230v AC Supply due to any reason.
- iv) In the event of failure of all the sources of 230V, 50 Hz AC Supply, the signalling system shall be fed by power generated by back-UP battery Bank connected to IPS. The health of battery bank is monitored through IPS monitoring Panel provided in the SM's room which shall be display the voltage 110V DC [Battery bank provided as back-UP for power Supply]. Depending upon the health of the Battery Bank and the system, the following indication/alarm will appear on the Remote Monitoring Panel, their implications and action to be taken by SS/SM on duty is tabulated below.

S N	Instructio n	Healthy of Battery Bank /Equipment	Visual Indicati on	Audio Indicatio n	Action to be taken by SS/Dy.SS on duty
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A	-	50% DOD (Depth of Discharge)	Red	Alarm	Alarm shall be acknowledged by SS/ SM on duty. Then inform to S&T Staff.
B	-	60% DOD	Red	Alarm	-Do-
C	System Shutdown	70% DOD	Red	Alarm	Signal feed cut off and all DC-DC converters to work. Audio alarm will continue till power Supply is restored. Then inform to S&T Staff.
D	Call S&T Staff.	Equipment fault	Red	Alarm	Failure of any module will give the alarm in SM's panel. Alarm shall be acknowledged by SS/SM on duty for audio cut-off. Then inform to S&T Staff.

On duty SS/SM in each shift shall check and record the readings, indications, etc in the station dairy duly informing to ESM/SM on duty for rectification of failures of IPS system, if any.

In the event of failure of remote monitoring ASM console due to any reason or when both traction power and local power failed, the SS/SM on duty shall inform concerned Electrical staff immediately.

In case 'Call S&T staff' or 'System Shut Down' indication appear on the remote monitoring panel of IPS and/or mal-functioning of the remote monitoring panel SS/SM on duty shall inform the same to concerned S&T staff immediately.

NOTE: In case of failure of all AC Supply sources IPS Battery Bank can provide power Supply, before system shut down indication of IPS.

5.1 SIGNAL LAMP FAILURE INDICATION (MUTING BUTTON RED WITH WHITE DOT)

Whenever LED signal/point failed, a miniature flashing Red light indication appears along with an audible buzzer indicates Signa/pointl failure. Then Station Master on duty shall press the Ack button thereby the buzzer stops but the Red indication continues flashing till either the LED signal/point is rectified.

5.2 BUTTON FAILURE INDICATION WHITE/BUTTON HELD BUZZER WHITE WITH RED DOT:

Whenever any button remains held UP in pressed condition 'Button Held' white. Indication starts flashing along with an audible buzzer. The SM on duty then acknowledge it by pressing the "Button Held" push button (white with red dot) the buzzer stop but the white indication continues to flash till the same is rectified.

6.0 TRACK CIRCUIT/AXLE COUNTER:

At this station all the berthing lines i.e. loop lines and main lines and point zones are provided with track circuits to indicate the occupation/ clearance of berthing/point zone portion. Starters will automatically be replaced by the point zone track circuits. Last Vehicle Track (LVT) and First Vehicle Track (FVT) circuits are provided near Home and advance starter signals for their automatic replacement and release of block instruments. In addition 90 Mtrs rail length track circuits are provided in advance of UP and DN home signals for control of calling on signals. The occupation/ clearance of track circuits indication is provided on the indication cum operating panel installed at station.

For SEC: PVP-GMDA

A pair of digital axle counter is provided between **PVP-GMDA** on DN line, one just beyond DN advanced starter No.12 of PVP and another one just beyond 400mts from the DN IB Home signal No. 14 of GMDA for proving IB section and another pair of digital axle counter near DN IB home signal no. 14 of PVP and another one just near BSLB of GMDA station for proving LVV section between PVP-GMDA. A pair of digital axle counter is provided between **PVP-GMDA** on UP line, one just beyond UP advanced starter No.11 of GMDA and another one just beyond 400mts from the UP IB Home signal No. 13 of GMDA for proving IB section and another pair of digital axle counter near UP IB home signal no. 13 of GMDA and another one just beyond first acing point no. 17A of PVP station for proving LVV section between PVP-GMDA.

For SEC: PVP-SNM

A pair of digital axle counter is provided between **PVP-SNM** on DN line, one just beyond DN advanced starter No.14 of SNM and another one just beyond 400mts from the DN IB Home signal No. 16 of PVP for proving IB section and another pair of digital axle counter near DN IB home signal no. 16 of PVP and another one just near BSLB of PVP station for proving LVV section between PVP-GMDA. A pair of digital axle counter is provided between **PVP-SNM** on UP line, one just beyond UP advanced starter No.11 of PVP and another one just beyond 400mts from the UP IB Home signal No. 13 of PVP for proving IB section and another pair of digital axle counter near UP IB home signal no. 13 of PVP and another one just beyond BSLB of SNM station for proving LVV section between PVP-SNM.

The position of the Block section whether cleared or occupied are reflected in the VDU diagram provided in the Station Master's office which shows 'GREEN' when the Block Section is clear and 'RED' when occupied. Whenever a train enters into the Block Section, "Block Section Clear" indication 'GREEN' for the particular block section disappears and 'RED' indication appears

After complete arrival of the train the 'RED' indication will disappear and 'GREEN' indication

will appear. If after the complete arrival of a train the 'RED' indication does not change to 'GREEN' it should be assumed as Block Instrument failure for the particular section and necessary action as per GR.14.13 is to be followed. The axle counters are interlocked with the respective block instruments for that section. If Axle Counter fails, Advanced Starter signal shall not come to 'OFF' and the concerned instrument shall remain locked in last operated position for section PVP-GMDA and PVP-SNM.

A resetting arrangement for resumption of the system, in case of failure of Axle Counter, has been provided in the SS/SM office of the adjacent Block stations. After being assured by both the SS/SM that the last vehicle has arrived completely at the receiving station, the resetting procedure shall be initiated after exchanging Private Number vide G&SR 4.17, 4.17.01.

(Details of resetting procedure given in APPENDIX-'B' under Para 5.1 of this SWR)

NOTE:

Before taking off reception and dispatch signals for UP and DN directions the SS/SM on duty should ensure that the entire route including overlap and berthing portion is clear of all obstructions by observing the Track indication/Axle counter indication. The indication of track circuit / Axle counter shall exhibit Red Light when track is occupied and Yellow light when track is clear and route is set. There will be no track indication when any route is not set.

- 6.1** When a train is to be dispatched from the station yard on signals the SS/SM on Duty must ensure that the route between the starter signal and the block section limits demarcated by the Advance Starter is clear of any obstruction (which includes point zones track circuits) before he takes off departure signals.

6.2 CRANK HANDLE FOR EMERGENCY OPERATION OF POINTS CRANK:

Crank handle is inter locked with the signaling and inter locking system at this station and the crank handle which is normally locked UP in the RKT instrument in the goomtias at the both End of the yards can be taken out when the signals on the connected route are in normal position and the route is not locked for any reason. Even when the route is locked the crank handle key can be extracted from the RKT through emergency operation by pressing the concerned crank handle button along with group Trans button concurrently. When this operation is resorted, the crank handle 'Key in' indication(white) and locked indication (Red) both start flashing. After 120 Second of flashing of both, the locked indication (Red) disappears. Similarly such red indication appears at the crank handle location at site near corresponding RKT and now the crank handle key can be taken out from the RKT at site, After key extracted at site from the RKT, the key in indication (white) on panel, board will extinguish. After completion of work, crank handle

key shall be restored to RKT which will be indicated by flashing key in (white) indication on panel board, which comes steady only after pressing of concerned crank handle button along with group release button concurrently.

- 6.3** On account of the doubtful operation of any track circuit by light vehicle/ vehicle including self propelled vehicles such as motor trolley or a diesel shunting engine or a tower wagon, in indication of the occupancy of the track it is necessary that the SS/SM on duty satisfied himself that the said vehicle/ vehicles has/have cleared the point zone track circuits by observing the track indication of the tracks on either side of the cross over by positively checking of the ENTRANCE and EXIT track circuit are showing occupancy and clearance in accordance with the train movement.

7.0 STATION MASTER'S KEY:

The panel is also fitted with SS/SM lock UP key to prevent unauthorized operation of this panel but with the arrangement to put back the signal to the ON position in the case of emergency without altering the route when the panel is locked position.

8.0 EMERGENCY OPERATIONS:

The following are the instructions for Emergency operations.

8.1 ROUTE CANCELLATION

For the purpose of the emergencies operations there is an emergency Route cancellation and also there is a veeder counter for counting emergency operations involving the concurrent operation of the emergency route cancellation button. The SS/SM on duty must press the emergency route button along with concerned signal button for which emergency route release is required. An yellow indication will appear below the signal indicating that the timer has started operation and after lapse of 120 seconds. The desired route will be released provided all other conditions are favorable for the route release.

8.2 SIGNAL CANCELLATION

For the purpose of throwing the signal to danger in case of emergency, press concerned signal button along with common signal cancellation button. Then the signal will fly back to on position.

The numbers on the veeder counter register the number of operations performed for such emergency cancellation and the SS/SM on duty should specify the cause for such usage giving the particulars of cause and the time of operation as related to a particular train etc in the train signal register. The detailed operation instructions are as follows:

8.3 CANCELLATION OF UNINTENDED LOCK ING OF POINTS.

Whenever there is an intended locking of any points (indicated by RED indication lamp near the concerned point) such a locking has to be released (after the concerned signal are in the normal position) by concurrently pressing the Emergency GroUP cancellation button (provided at the counter of the panel) and the concerned signal button provided the track circuits are clear and are in working condition. This operation is counted on the veeder counter/counter as already pointed out.

8.4 CANCELLATION OF LOCKING OF ROUTE AND POINTS AFTER THE SIGNAL HAS BEEN PUT BACK TO 'ON'

OR

THE SIGNAL HAS GONE BACK TO ON EITHER AFTER THE MOVEMENT OF THE TRAIN IS CANCELLED

OR

THE TRAIN HAS COME TO A STOP OUTSIDE THE STOP SIGNAL

In case the route is set and the signal is taken off and if it is warranted that the signal has to be put back to ON and cancel the route.

- a) Firstly the signal has to be put back to the ON position
- b) Emergency route cancellation operation must be initiated as detailed in para 8.1.

8.5 EMERGENCY OPERATIONS:

Cancellation of the locking of points not released after the passage of the train for any reason. If the locking of the route does not get released for one reason or the other after passage of the train, it is necessary to take recourse to the following emergency operation.

- a) Firstly it must be ensured that the signal and signal buttons are in the normal position.
- b) Operation as details in para 8.1 to be followed.

9.0 EMERGENCY OPERATION OF POINTS (IN CASE OF POINT ZONE TRACK CIRCUIT FAILURE):

The SS/SM on duty can operate points from panel; in case of point zone track circuit fails. The Station Master on duty after physical verification insert the SS/SM emergency point key and turn into get the key. 'N' position keeping the Emergency point key in that position the SS/SM on duty must press the individual point button along with emergency point operation button (Black with Red dot). He shall then release the emergency point operation button only and press the point group

Normal or Reverse button as per requirement keeping the individual point button is pressed condition. Points will be set to Normal or Reverse position as per operation. During the initiation RED indication will appear above the emergency operation button. This operation will be registered in emergency point operation counter placed the emergency point operation button will increase in number by one.

10.0 INTER LOCKING OF SIGNALS:

All running line points are fitted with point machine and all are electrically detected by the relevant Home signals and starters.

UP & DN IB signals are interlocked with respective double line block instrument in LINE CLEAR position.

Home signals are interlocked with respective Double Line block instrument. The Block instruments cannot be made to normal unless the respective Home signals are in Normal position.

Signals once taken OFF can be put back to Danger in case of emergency by pressing the concerned signal button in conjunction with signal cancellation button even when the panel is locked UP with SS/SM.

11.0 LOCKING OF RELAY ROOM:

- i) Relay room at this station is provided with double locks (Two independent locks) as necessary vide OM 1.14 one key shall be kept with the Signal Maintainer of the section and the other with Station Master on duty. The relay room cannot be opened unless both keys are used.
- ii) The SS/SM shall ensure that the Relay Room key is given to S&T maintenance staff under clear signature as and when required for their normal maintenance and special works and that the key should be returned by the S&T staff immediately after completion of their work and the documentation should be made in the Relay Room key register maintained at the Station according to SR 3.51.05 and OM 1.14.

12.0 MAINTENANCE OF S&T INSTALLATION AND ADHERENCE TO MAINTENANCE SCHEDULES:

- i) The regular maintenance of the S&T installation and adherence to the schedules of Maintenance as also to the mandatory schedules of testing of Points, Track Circuits, Signals, Ground Frames, Level Crossing Gates, the associated interlocking apparatus i.e. Cables and finally the interlocking functional tests is a must for the safe and satisfactory working these installations at the Station.
- ii) The tests, checks and re-placement etc., including overhauling shall confirm to the

Schedules of the maintenance as indicated in the Signal Engineering Manual as also in the current and extent instructions/Circulars on the subject.

13.0 PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF SIGNAL INTERLOCKING INSTALLATION:

Whenever there is failure of Points, Track Circuits, Signals , Axle-counters Or any other interlocking gear at the Station, the failure report should communicated by the SS/SM on duty through a Memo to the sectional Maintainer and the Signal Inspector of the section along with others as per G & SR 3.51.04 and 3.68.04 and document all such transactions.

14.0 INSPECTION OF POINTS BEFORE DELCARING THEM DEFECTIVE:

However, before declaring as Signal defective the setting of the Point on the route to which It applies shall be inspected by the Station Master on duty irrespective of the position of the Switches on the Panel in terms of SR 3.68.04(c).

14.1 RECTIFICATION AND CHECK BEFORE RESUMING NORMAL WORKING:

It is only after receipt of this information the sectional Maintainer [Electrical Or Mechanical] shall attend to the failure after giving a disconnection Memo. After rectification of the fault, the sectional maintainer shall give a re-connection Memo Detailing the rectification and it is only after the Station Master on duty has personally checked this defective gear and is satisfied that it is in good and proper working order. He shall resume the normal working of the said defective gear in terms of SR 3.68.04[c] and [d].

15.0 PROCEDURE FOR CARRYING OUT PLANNED MAINTENANCE WORKS:

However any normal maintenance or special works for heavy renewals etc., are involved, These works should be pre-planed by the Signal and Telecom filed staff and the Inspector of the section should give to the Station Master in writing “Advance intimation” about this planned work in terms of G & SR 15.08.01.

16.0 EMERGENCIES:

Not with standing anything contained in the afore-said Para Nos. 14.1, 14.2 and 14.3 when a Gear is found to be defective and un-safe for passage of trains, the Signal & Telecom staff must at once suspend the working of that gear and the associated installations and issue a “Suspense Memo” explaining the seriousness of the defect Or Damage to the interlocking installation to the SS/SM and take SS/SM acknowledgment. After this, the usual practice of exchange of disconnection memo and re-connection Memo can follow and the SS/SM must promptly act on such massages and take adequate precautions treating the S&T installation as defective and pass trains over the effected interlocking gears according to extent

instructions as contained in G R 3.77 and SR thereon.

17.0 SIGNAL LIGHTS:

The SS/SM on duty at every shift must also ensure from Panel Board that all the Signal lights are Burning properly and brightly. This fact must be recorded in the diary under a separate entry and confirm to the section controller on duty as per the instructions contained in Divisional Safety Circular No. 82/82, Dated 2.5.82 and GR 3.49(3).

18.0 CORRECTING TIME IN THE STATION CLOCKS:

The SS/SM shall set the time on his Clock according to the time Signal given by the section Controller on duty at 16.00 hours every day according to G & SR 4.01.01 and 4.01.02

19.0 NORMAL POWER SUPPLY:

The Station works on Three-phase power Supply. The normal power Supply is from the AT supplies.

19.1 STANDBY POWER SUPPLY:

APSEB Supply is available at the station as stand by, with Auto Changeover switch arrangement.

19.2 NORMAL POWER SUPPLY-MAINTENANCE OF POWER SUPPLY, POWER FAILURE AND REPORTING SUCH FAILURES:

Normal power Supply to the signaling and interlocking installations at this station is drawn from the AT Supply source. The Station Master must however, maintain the record of the power failure of the ATs and he must promptly report the failure immediately to the Section Controller and to the concerned Electrical and S&T maintenance staff.

20.0 WORKING OF POINTS – POSITION OF POINTS:

The normal position of all points shown in the Station Working Rule Diagram No. **SI/WRD 23018 “ALT-M”** and also in the mimic indication panel provided in the Station Masters office.

20.1 All cross over points and independent points on the running lines are worked by Electric Point Machines. The point machines have in-built locking and detection arrangements. These points are remotely controlled from the panel situated in the SS/SM office.

20.2 The operation and indication on the points and their route locking over them is already explained in earlier pares of Appendix-B.

20.3 All siding entrance points (on the running lines) and the corresponding derailing switches on the siding are coupled and locally operated by hand levers provided at site. The entrance points are provided with hand plunger locks with key locking arrangements, the key being released from the RKT instruments. The siding entrance points controlling key is inter locked with the interlocking and signaling system through the RKT as explained in earlier parts of Appendix-B.

21.0 PROCEDURE TO BE FOLLOWED IN CASE OF FAILURE OF SIGNAL POINTS AND USE OF EMERGENCY CRANK HANDLE:

21.1 Whenever a Signal or a Point becomes defective any movements over the Points on the running lines should be made after clamping and padlocking both the facing and trailing Points by SS/SM on duty personally for all trains at the Station.

21.2 In case of failure of Signal or a Point and in case the Point cannot be operated from the Panel, the emergency Crank Handle which is Interlocked with the system has to be extracted and the following procedure has to be observed.

21.3 In case of failure of any point, Crank Handles are provided for setting of the points manually. For this operation procedure mentioned in para No.6.2 shall be followed.

21.4 The case of failure of Motor Operated Points should be promptly reported to the concerned Signal Inspector/ESM for immediate rectification.

21.5 Whenever an emergency Crank Handle is required to be used by a Signal Official for maintenance of work attending to failure, the Signal Official will give a disconnection memo to the SS/SM on duty and after making necessary entries in the emergency Crank Handle register, the Station Master on duty will obtain acknowledgement of the Signal Official in the emergency Crank Handle Register and then handover to him the emergency Crank Handle for the Points concerned. All the Points will be treated as defective till the Emergency Crank Handle is returned back to Station Master on duty.

21.6 Before parting with the Emergency Crank Handle either for attending failure or for Maintenance work by Signal Maintenance Officials, the SS/SM on duty will ensure that the reception and departure Signals are put back to on position. The Points of all the lines should be treated as Non-interlocked and the Station Master on duty is responsible for introduction of Non-interlocked working and the trains will be piloted IN and OUT duly clamping and Padlocking the Points, both in facing and trailing directions over which the train is to pass, as per GR 3.69 and 3.70 with relevant SR's. The SS/SM on duty will be personally responsible for setting and locking of Points, for reception and dispatch of all trains.

21.6.1 The Emergency Crank Handle Register is to be maintained in the following proforma by the SS/SM on duty wherein the particulars of usage of the Emergency Crank

Handle must be recorded:

1. Date:
2. Point Number which failed or required to be tested:
3. Time failure:
4. Disconnection memo number received from S&T Staff:
5. Signature of SM/Signal Official to whom the Emergency Crank Handle is handed over:
6. Time Emergency Crank Handle is sent out:
7. Individual Point numbers, and Line number nominated for admission of dispatch for which Points are set, Clamped and Padlocked:
8. Train number to be admitted or dispatched:
9. Signature of the SS/SM on duty to ensure correct setting, Clamping and Padlocking of the Points:
10. Date and Time fault rectified.
11. Time of Emergency Crank Handle received back by SS/SM on duty:
12. Signature and Designation of the Signal Official who rectified the fault:

IMPORTANT NOTE:

When performing shunting operations in the sidings it must be clearly noted that the siding Points are interlocked with the system in the NORMAL position of the Points and in REVERSED position they are not interlocked. The Official responsible for shunting operation must clamp the Points at the both ends before permitting any movement.

22.0 INTERLOCKING OF SIGNALS WITH BLOCK INSTRUMENTS:

22.1 INTERLOCKING WITH HOME SIGNALS:

All the UP and DOWN HOME Signals are Electrically interlocked with the respective DLBI so that before the handle of the DLBI Instrument can be turned from TOL position to LINE CLOSED position, all the switches controlling the Home Signals of UP or DOWN direction as the case may be must be in their NORMAL position.

22.2 The UP and DOWN Advanced Starter Signals are Electrically interlocked with respective DLBI so that these Signals cannot be taken OFF until the Handle of the concerned Block Instrument is in Line Clear position.

22.3 SUSPENSION OF LAST STOP SIGNALS:

When the Double line block instrument is suspended with its handle in any position for whatever reason the concerned Last Stop Signals controlled by the DLBI must be treated as suspended and trains shall be PLCT & Piloted Out.

23.0 BURNING OF SIGNAL LIGHTS:

The SS/SM on duty shall not grant LINE CLEAR UN-less he has ensured that the Lamps of fixed Signals that apply to the train are burning brightly. If the Signal Lights cannot Kept burning the Station Master on duty shall before giving LINE CLEAR initiate action in accordance with the procedure prescribed in GR 3.68 To 3.72 and relevant SR's vide GR 3.49 (4).

24.0 LAST VEHICLE VERIFICATION (LVV) BY BLOCK PROVING THROUGH AXLE COUNTER:

Single Section Digital Axle Counter has been provided between dispatching station's advanced starter signal and first stop signal of receiving station's i.e between **PVP-SNM** and **PVP-GMDA** sections on UP & DOWN lines. Complete arrival of trains at respective stations is proved by these devices (BPAC). The status of the block section that is occupied or clear is indicated by the indications provided on the domino panel and on reset box. The advanced starter is controlled by the Clearance of the LV Axle counter section (BPAC).

Clearance of LV Axle counter section is proved in the respective Block control cct. (Circuit) as well as in block release cct. In case of failure of LV Axle counter line clear cannot be granted through block instrument. Also in case of such failures on arrival of train block instrument cannot be normalised.

Whenever after complete arrival of train, the LVCD axle counter continue to show Red on the panel Board, the on duty SS/SM at **PVP** station shall resort to the reset procedure of the axle counter.

For this purpose SS/SM at **PVP** Station shall first verify the block section is clear of train if the failure has occurred after arrival of train, SS/SM shall obtain signature from the Guard of stopping train on the train intact register [vide GR & SR No.4.17, 4.17.01) or by exchanging alright signal with the Guard of through train, so that he can ensure that the train has arrived completely before resetting of LVCD axle counter. SS/SM of **SNM** for UP Block Section and **GMDA** for DN block section.

Before resorting to the resetting of the LV axle counter (BPAC) SS/SM of the receiving station shall ensure complete arrival of train by means of physical verification and as per the practice in vogue by deputing concerned operating official.

One reset box for each LV axle counter (BPAC) has been provided in the panel room. There are three indications on the reset box i.e Red, yellow and Green. The clearance or occupation of the block section is proved by the Green or Red indications respectively as on the panel. Yellow indication which is called "PPR" indication proves that resetting operation has been initiated. One reset key and one reset button are also provided on the reset box for resetting.

After complete train arrival is ascertained SS/SM on duty at receiving end shall confirm the same to the dispatching end SS/SM supported by a PN and shall request for preparatory resetting of axle counter. SS/SM on duty at both ends shall adopt the following procedure simultaneously.

SS/SM on duty at both ends shall press the reset button, then turn and press the reset key, then first release the reset button and then release the reset key. After this operation is

completed, at both ends of the station “PPR” indication (yellow) will appear on the reset box and one number will increase in the reset counter which is provided on the reset box at both stations. SS/SM shall record the counter number in the A/C reset register with reason for resetting.

Whenever LV axle counter (BPAC) fails first train has to be piloted out after completion of the resetting procedure. On arrival of the first piloted train, the LV axle counter section will show clear automatically by indicating Green on Reset panel and on operating panel.

Even after above resetting procedure, if the section is not shown clear, on duty SS/SM shall inform concerned S&T staff immediately. Till such time the system is rectified, the absolute block working shall be suspended and the trains shall be worked as per relevant para of G.SR & BWM.

All reset keys shall be kept in the personal custody of SS/SM on duty.

24.1 LAST VEHICLE CHECKING DEVICE:

Axle counters are provided on UP and DN lines between **PVP-SNM** and **PVP-GMDA** Double line section for block proving of Last Vehicle Checking device.

The occupation and clearance of the axle counter section are indicated on panel by ‘Red’ and ‘Green’ lights.

If any Block proving Axle counter section fails, the Last stop signal at the rear station cannot be taken ‘OFF’ and Block Instrument at advance station cannot be turned to “Line Closed” position after arrival of a train and in such case, resetting of last vehicle checking device is to be resorted to in both the station’s.

Even after completion of reset operation, LVCD Axle counter will show clear only if next train is passed. The next train is to be piloted.

No train should be allowed on signal to leave a station in any particular direction unless:-

Track clear indication is available for the relevant axle counter track circuited portion and Last stop signal is not taken ‘OFF’.

Reset arrangements are provided in the SM’s room for sections **PVP-SNM** and **PVP-GMDA**. The key for the Reset Box should normally be kept with SM and for every such operation of the resetting the Axle Counter, the SM on duty shall record giving details of the date of use, train number, time, number registered on the counter and reasons for resetting and initial each such entry.

24.2 RESETTING OF LVCD AXLE COUNTER (DIGITAL):

After complete arrival of train, if the Last vehicle axle counter of the does not clear or Last vehicle Axle counter section free indication and Green does not appear in the panel, The receiving station SM shall apprise the sending station SM through telephone for resetting giving details of last train that has arrived complete at his station and the block section is clear.

The receiving station shall inform the sending station as whether the last train that entered

into the section has arrived or not. And, if arrived fully shall so intimate authenticated by exchanging private number with the sending station.

The status of the section LVCD i.e. Clear (Green) occupied (RED), preparatory reset (Green) and power on the indications (white) are provided in the reset box.

The procedure to be followed for resetting by both of sending end and receiving end individually is as follows.

On being advised by SM of PVP station, SM of GMDA/SNM station inserts the key in the Reset Box, turns right and presses both the key and the Push Button (RED) simultaneously with the SM of PVP. The Counter on the Reset Box at PVP station and SNM/GMDA station registers the next higher number and after five seconds miniature green preparatory Reset indication appears on the Reset Box both at PVP and GMDA/SNM. The step by the step procedure shall be followed as given in “b” to “i”.

- a) SM PVP station & SM /GMDA/SNM station shall then insert SM's LV reset key and turn right.
- b) Press LV reset button provided on the panel.
- c) Release SM's LV reset key and remove it.
- d) The system obtains preparatory reset state and preparatory reset indication (Green) glows on the panel. The counter reading increases by one count after a gap of 5 seconds approximately.
- e) The counter reading should be recorded.
- f) One train is to be piloted in the section to make the system normal.
- g) The SM on duty shall record it in the Trains Signal Register indicating the resetting operations in detail i.e. train number, time private number exchanged with SM of sending station and giving reasons for the resetting operations.
- h) If the axle counters functioning properly now, then block section cleared indication “G” will appear on the panel and the concerned Block working will normalized.
- i) If the LV axle counter section indication does not appear ‘Green’ and continues to show ‘RED’ indication, the concerned block section shall be suspended and failure intimation to be given to sectional signal Maintainer JE/SE/ (signal) for early rectification.

APPENDIX 'C'

TO STATION WORKING RULES OF PARVATIPURAM STATION

ANTI COLLISION DEVICE [RAKSHA KAVACH]

Not applicable to this Station.

APPENDIX-‘D’ TO STATION WORKING RULES OF PARVATHIPURAM STATION

The following staffs are concerned with the movement of the trains whose duties are given below:

DUTIES TO BE PERFORMED BY THE STAFF AT PARVATHIPURAM STATION.**1) STATION SUPERINTENDENT:**

- i) Station in charge is responsible for the efficient discharge of duties by different members of staff at his station. (General Rules 5.01) and OM Para No. 2.02.
- ii. Ensuring that the general working of the Station is being carried out in strict accordance with the current rules, procedures and instructions.
- iii. Providing prompt and courteous service with utmost safety and security of passengers and employees.
- iv. Availability, helpfulness and good conduct of station porters.
- v. He shall be responsible for general up-keep of the station.
- vi. He shall be responsible for keeping the safety and operating literature including circulars, pamphlets, gazette etc. up to date and these must be explained to the staff working under him and got noted by them.
- vii. He shall maintain complete and up to date record of Engg/S&T/TRD restrictions. He shall be responsible for bringing forward the caution order register every Monday.
- viii. He shall be responsible for maintaining Accident Register and Accident Charts and keeping these up to date.
- ix. He shall maintain figures in respect of the stock and get them relayed to the control in time.
- x. He shall investigate all public complaints and send the extracts of the complaint with explanation of the staff and his own remarks to Divisional Office in time. In case of complaints concerning the other department, intimation may be given to the subordinate In-Charge of that department immediately so that action may be taken to avoid recurrence.

2. SM/ASM

- i) He shall come on duty after taking complete rest and shall not perform his duty under the influence of drugs or intoxicants.
- ii) When on duty or when called upon to do so, in case of emergency, he shall be responsible for obtaining and granting line clear to trains as per SWR & OM Para No. 2.02 (e).
- iii) He shall handle the control panel himself when on duty and shall not permit any unauthorized person to manipulate panel.
- iv) He shall keep the SM's control keys of control panel in his personal custody whenever, he is required to leave his office even for a short duration.
- v) While coming on duty, he shall ensure that all points and signals are in good working order and all the registers, records, pertaining to train passage are completed in all respect before taking over the charge.
- vi) He shall personally ensure that conditions for taking 'off' the reception signals are fulfilled and the clearance of line is verified as per SWR before actually pressing the relevant button for taking off the signals.
- vii) He shall ensure from indications available in the panel that the signals are burning

brightly and are giving correct indications.

- viii) He shall ensure that proper indications of points, signals, track circuits, crank handle, level crossing gate etc., are displayed at their proper places.
- ix) He shall ensure that all Shunting operations are carried out as per extant orders and GR 5.19 and SRs thereof.
- x) He shall inform the Technician/JE/SE(sig) in writing or through a written message, any failure of track/signals/points/keys or panels etc. and shall invariably enter these failures in Signals Failure Register.

3. TRAFFIC POINTSMAN/TOKEN PORTERS:

- i) He shall obey all lawful orders of the ASM/SM/SS on duty or official in-charge supervising the shunting during the course of shunting operations including coupling or uncoupling of vehicles, wagons, fixing rubber washers, closing wagon doors, displaying hand signals etc.
- ii) He shall exhibit danger signal to the official supervising the shunting if vehicles are fouled during the shunting operation.
- iii) He shall pilot the trains in case of abnormal working and when ordered by the SS on duty.
- iv) He shall be in proper neat and clean uniform while on duty.
- v) He shall come on duty after taking complete rest and shall not perform duty under the influence of liquor, drugs, or intoxicants.
- vi) Neither shall he absent himself from duty nor shall he exchange his duty without prior permission of his superiors.
- vii) He shall not leave his duty unless properly relieved or authorized by his superiors.
- viii) He shall set the points properly in non-interlocked yard and man them for all shunting movements and shall not interfere with the points while the vehicles are standing and or passing over them.
- ix) He shall be responsible to see that fouling marks are kept clear after completion of shunting.
- x) He shall always commence his duty equipped with hand signal lamps during night and flags during day.
- xi) He shall verify the correct setting of route before delivering required papers to the Loco Pilot either through taking 'OFF' the relevant shunt signal or by personal observation.

4. TRAFFIC GATE MAN:

He is responsible to operate L.C. Gate at his end. He shall attend to the call of the SS/Dy. SS on duty and do the work entrusted by the SS/Dy. SS on duty connected to gate operation. He shall promptly report any abnormality to SS/Dy. SS on duty. He shall also verify the complete arrival of train if visible from the gate and confirm it to the SS/Dy. SS on duty supported by private number vide SR.4.17.01[c][iv]. He shall also protect the gate when required as given in gate working rules. He shall do all necessary functions related to gate working as stated in gate working rules.

NOTE: All staff should be in uniform while on duty and follow the rosters issued by Sr.DPO/WAT from time to time.

APPENDIX 'E'**TO STATION WORKING RULES OF PARVATIPURAM STATION.****ESSENTIAL EQUIPMENT**

A list of essential equipment's is given below which shall be maintained in good Working order as per OM 2015, Para no. 11.15.

Sl. No	Description	Station
1.	Detonators	20
2.	LED based tri colour flashing torch.	3(1 Spare)
3.	Hand Signal Flags	3(1 Spare)
4.	Iron Skids	6
5.	Safety chains with Pad locks	6
6.	Fire & Sand buckets	5
7.	Minimax Fire Extinguishers DCPT	2
8.	Line blocking collars	8
9.	Motor trolley on line board	2
10.	Block Suspension board	2

APPENDIX 'F' TO STATION WORKING RULES OF PARVATHIPURAM STATION**RULES OF WORKING OF DK STATION, HALTS, IBH, AND OUTLYING SIDINGS****1. RULES FOR WORKING INTERMEDIATE BLOCK SIGNALLING BETWEEN PVP-GMDA:**

(A) IBS between PVP-GMDA section:-

(i) The block section between has been split into two block sections by providing Intermediate block stop signals at km: 383.700 (controlled by GMDA station) for UP line and on DN line at km: 383.138 (controlled by PVP station). Intermediate block stop signals are controlled through Double line lock and block instruments at the respective receiving ends.

(a)The block working for section between PVP-GMDA on UP and DN lines is controlled by the provision of DLBI (SGE type) and are provided at GMDA and at PVP stations. The DN advanced starter signal no. 12 of PVP and UP advanced starter signal no. 11 of GMDA are controlled by the clearance of IB section through respective IB section monitoring axle counters and the IB home signals are controlled in turn through the line clear position of respective DLBIs at the receiving stations.

(B) IBS between PVP-SNM section:-

(i) The block section between has been split into two block sections by providing Intermediate block stop signals at km: 383.700 (controlled by GMDA station) for UP line and on DN line at km: 383.138 (controlled by PVP station). Intermediate block stop signals are controlled through Double line lock and block instruments at the respective receiving ends.

(a)The block working for section between PVP-GMDA on UP and DN lines is controlled by the provision of DLBI (SGE type) and are provided at GMDA and at PVP stations. The DN advanced starter signal no. 12 of PVP and UP advanced starter signal no. 11 of GMDA are controlled by the clearance of IB section through respective IB section monitoring axle counters and the IB home signals are controlled in turn through the line clear position of respective DLBIs at the receiving stations.

(b)Trains between intermediate block signal to respective home signal of station in advance in both sides are worked by means of SGE type lock and block instruments vide G& SR 4.09, 5.07, 14.01 to 14.14 and chapter V of BWM.

(c)Last stop signal to the intermediate block stop signal in both sides are controlled by Electronic axle counter and are worked under absolute block system in terms of G & SR 14.01, 14.13. Indications on panel are provided at PVP station.

[A.K.SAINI]
DSTE/P/VSKP

[K.SIVA HARSHA]
DOM/WAT

2. INDICATIONS PROVIDED ON PANEL FOR I.B. SECTION:

The indications of signals, IB and Block sections in both up and down directions are shown in the following table:

2.1 SECTION GMDA-PVP (UP DIRECTION):

Sl. No	Signal Aspect [S-11]	IB Section Indication [11 AXT]	IB Home Aspect [S-13]	Block Section Indication	Remarks.
1	Green	While Illuminated	-	-	Advance starter No: 11 is taken off to dispatch a train up to IB Home.
2	Red	Red	-	-	IB Section is occupied.
3	-	-	Green	While illuminated .	IB Home taken off for train up to home of GMDA.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

2.2 SECTION GMDA-PVP (DN DIRECTION):

Sl. No	Signal Aspect [S-12]	IB Section Indication [12 AXT]	IB Home Aspect [S-14]	Block Section Indication	Remarks.
1	Green.	While Illuminated.	-	-	Advance starter No: 12 is taken off to dispatch a train up to IB Home.
2	Red.	Red.	-	-	IB section occupied.
3	-	-	Green	While illuminated.	IB Home taken off for train up to home of PVP.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

2.1 SECTION SNM-PVP (UP DIRECTION):

Sl. No	Signal Aspect [S-11]	IB Section Indication [11 AXT]	IB Home Aspect [S-13]	Block Section Indication	Remarks.
1	Green	While Illuminated	-	-	Advance starter No: 11 is taken off to dispatch a train up to IB Home.
2	Red	Red	-	-	IB Section is occupied.
3	-	-	Green	While illuminated .	IB Home taken off for train up to home of PVP.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

2.2 SECTION SNM-PVP (DN DIRECTION):

Sl. No	Signal Aspect [S-14]	IB Section Indication [14 AXT]	IB Home Aspect [S-16]	Block Section Indication	Remarks.
1	Green.	While Illuminated.	-	-	Advance starter No: 14 is taken off to dispatch a train up to IB Home.
2	Red.	Red.	-	-	IB section occupied.
3	-	-	Green	While illuminated.	IB Home taken off for train up to home of SNM.
4	-	-	Red	Red	Block section is occupied or IB Home passed at danger.

2.5 Buzzer/Bell:-

One audio buzzer is provided in the SM room at PVP to detect Train Entering section for outgoing trains. After train passes the intermediate block stop signal, the buzzer/bell will start ringing at PVP station. On hearing the buzzer/bell the Dy. SS/SM must acknowledge the same by clicking on train entering section [TES] muting button to stop the buzzer/bell and then send train entering section report to the station master of the station in advance who shall turn commutator of the Double Line Lock and Block Instrument from the Line

Clear position to 'Train On Line position' and acknowledge train entering section following the procedures laid down vide Block Working Manual.

Train Run-Away buzzer:

When a train passes IB signal at ON position SM/PVP of dispatching station receives the train run away buzzer and displays flashing indication on the VDU. The SM/PVP by acknowledging the train run away button, the buzzer stops and the indication remains steady and after train passes IB signal and beyond 400mts the indication also disappears.

b) In the event of failure of I.B. track circuit [i.e. track clear indication not available] which shall not permit taking 'OFF' last stop signal, it should be ensured by Dy. SS/SM on duty at the dispatching station through exchange of private number with the Dy. SS/SM of the receiving station that the last train that passed the last stop signal of his station has fully arrived at receiving station, before allowing the next train to enter in to the section, such permission to the next train shall be granted and the section PVP-GMDA/SNM shall be shall be treated as single section.

c) By issuing the pilot memo when normalization of the system is not possible, in such case, line clear has to be taken on lock and block instrument. Trains are to be dispatched from the station only after obtaining line clear till such time track circuit or last stop signal is restored to normal.

d) NORMALIZATION OF THE TRACK CIRCUIT AND OF BLOCK WORKING BY RESETTING FEATURE:

i] No train should be allowed to leave station in any particular direction unless I.B. track clear indication is available for the relevant track circuited portion of I.B. section and last stop signal cannot be taken off and provision stipulated in Para g.III to be followed.

ii] A Resetting arrangement for the resumption of I.B. Axle counter under failure condition through co-operative features of both the Dy. SS/SM on duty at either end station of the Block section is provided, which should only be resorted to after the train that was lastly sent arrives fully at the receiving station and is certified in this respect by the Dy. SS/SM at the receiving station through exchange of private number.

iii] For monitoring of I.B. section working & re-setting of I.B. Axle counters, Track Indications and Re-setting arrangements are provided with button on the panel at PVP and GMDA/SNM stations. Counters are also provided for the purpose of recording the re-settings for the I.B. Axle Counters in case of failures in IB section. The Re-setting button and permission granting button on the panel at GMDA/SNM should normally be

kept sealed by the S&T staff and Dy.SS/SM will inform the Maintainer for resealing the same whenever the seal has been broken.

iv] The Dy.SS/SM on duty at PVP station shall maintain a separate register for use of resetting at IB Axle Counters wherein every operation of the resetting button shall be recorded giving details of date of use, train, number, time, number registered in the counter on panel and reasons for resetting and initial each such entry.

v] The procedure for resetting of the I.B. Axle counters in terms of clause g.II above shall be as follows:

2.4 **SECTION PVP-GMDA ON DN LINE:**

	DISPATCHING STATION [PVP]		RECEIVING STATION [GMDA]
1	Dy.SS/SM on duty shall call the attention of SS/Dy.SS of GMDA station through Telephone for re-setting I.B. Axle counter zone giving details of last train left the station into the section.	1	SS/Dy. SS on duty at GMDA after verifying that the said dispatched train arrives fully, shall exchange private number with Dy.SS/SM on duty at PVP and gives permission to re-set by clicking the 'Permission Granting' button provided on the re-set panel.
2	On getting re-set permission on panel Dy. SS/SM on duty shall acknowledge by clicking on 'Permission received from GMDA' acknowledgement button icon. For each such operation the reset counter provided in panel shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed Reset counter number in re-setting register.	2	SS/Dy. SS on duty at GMDA shall continue to press the 'Permission Granting' button.
3	Dy. SS/SM on duty then shall re-set the I.B. Axle counter by clicking on 'DN Re-set Key' and select 'Key In'. After which he shall click on the 'Re-set button',	3	SS/Dy. SS GMDA shall also press 'Re-set' button provided on re-set panel at GMDA station simultaneously at the same time for

	which will reset the Axle Counter.		re-setting of I.B. Axle counter.
4	On completion of re-setting process I.B. section clear indication will appear on panel.	4	The SS/Dy. SS on duty at GMDA shall record in his train register the re-setting operation giving train number, time and private number exchanged with the Dy. SS/SM of PVP station giving reasons for the re-setting operation.

2.5 SECTION GMDA-PVP ON UP INE:

	DISPATCHING STATION [GMDA]		RECEIVING STATION [PVP]
1	SS/Dy .SS on duty shall call the attention of SS/Dy. SS of PVP station through Telephone for re-setting I.B. Axle counter zone giving details of last train left the station into the section.	1	Dy. SS/SM on duty at PVP after verifying that the said dispatched train arrives fully, shall exchange private number with SS/Dy. SS on duty at GMDA and gives permission to re-set by clicking the 'Permission Grant' push button [To GMDA] provided on the panel.
2	On getting re-set permission on re-set Panel SS/Dy.SS on duty shall acknowledge by pressing 'Permission received from PVP' acknowledgement button. For each such operation the reset counter provided in Operating Panel shall increase by one digit. SS/Dy. SS on duty shall make an entry of changed Reset counter number in re-setting register.	2	Dy. SS/SM on duty at PVP shall continue to click the 'Permission Granting' button'.
3	SS/Dy. SS on duty then shall re-set the	3	Dy. SS/SM PVP shall also click

	I.B. Axle counter by turning 'UP Re-set Key' and press the 'Re-set button' on the re-set panel, which will reset the Axle Counter.		'Re-set' button provided on panel at PVP station simultaneously at the same time for re-setting of I.B. Axle counter.
4	On completion of re-setting process I.B. section clear indication will appear on re-set panel.	4	The /Dy. SS/SM on duty at PVP shall record in his train register the re-setting operation giving train number, time and private number exchanged with the SS/ Dy. SS of GMDA station giving reasons for the re-setting operation.

2.4 SECTION PVP-SNM ON DN LINE:

	DISPATCHING STATION [SNM]		RECEIVING STATION [PVP]
1	Dy.SS/SM on duty shall call the attention of SS/Dy.SS of PVP station through Telephone for re-setting I.B. Axle counter zone giving details of last train left the station into the section.	1	SS/Dy. SS on duty at PVP after verifying that the said dispatched train arrives fully, shall exchange private number with Dy.SS/SM on duty at SNM and gives permission to re-set by clicking the 'Permission Granting' button provided on the re-set panel.
2	On getting re-set permission on panel Dy. SS/SM on duty shall acknowledge by clicking on 'Permission received from PVP' acknowledgement button icon. For each such operation the reset counter provided in panel shall increase by one digit. Dy. SS/SM on duty shall make an entry of changed Reset counter number in re-	2	SS/Dy. SS on duty at PVP shall continue to press the 'Permission Granting' button.

	setting register.		
3	Dy. SS/SM on duty then shall re-set the I.B. Axle counter by clicking on 'DN Re-set Key' and select 'Key In'. After which he shall click on the 'Re-set button', which will reset the Axle Counter.	3	SS/Dy. SS PVP shall also press 'Re-set' button provided on re-set panel at PVP station simultaneously at the same time for re-setting of I.B. Axle counter.
4	On completion of re-setting process I.B. section clear indication will appear on panel.	4	The SS/Dy. SS on duty at PVP shall record in his train register the re-setting operation giving train number, time and private number exchanged with the Dy. SS/SM of SNM station giving reasons for the re-setting operation.

2.5 SECTION SNM-PVP ON UP INE:

	DISPATCHING STATION [PVP]		RECEIVING STATION [SNM]
1	SS/Dy .SS on duty shall call the attention of SS/Dy. SS of PVP station through Telephone for re-setting I.B. Axle counter zone giving details of last train left the station into the section.	1	Dy. SS/SM on duty at SNM after verifying that the said dispatched train arrives fully, shall exchange private number with SS/Dy. SS on duty at SNM and gives permission to re-set by clicking the 'Permission Grant' push button [To PVP] provided on the panel.
2	On getting re-set permission on re-set Panel SS/Dy.SS on duty shall acknowledge by pressing 'Permission received from SNM' acknowledgement button. For each such operation the reset counter provided in Operating Panel shall	2	Dy. SS/SM on duty at SNM shall continue to click the 'Permission Granting' button'.

	increase by one digit. SS/Dy. SS on duty shall make an entry of changed Reset counter number in re-setting register.		
3	SS/Dy. SS on duty then shall re-set the I.B. Axle counter by turning 'UP Re-set Key' and press the 'Re-set button' on the re-set panel, which will reset the Axle Counter.	3	Dy. SS/SM SNM shall also click 'Re-set' button provided on panel at SNM station simultaneously at the same time for re-setting of I.B. Axle counter.
4	On completion of re-setting process I.B. section clear indication will appear on re-set panel.	4	The /Dy. SS/SM on duty at SNM shall record in his train register the re-setting operation giving train number, time and private number exchanged with the SS/Dy. SS of PVP station giving reasons for the re-setting operation.

2.6 DISPATCH OF TRAINS:

Dispatch of trains is governed by the provision of G & SR 3.42, 3.70 and Block working manual rules.

a) From PVP towards GMDA/SNM.

Train will be dispatched in accordance with the General Rules 3.42, 3.70., 3.75, 4.35 and 8.01 and subsidiary Rules thereto.

b) PVP TO IBS ON UP AND DOWN LINES:

The Dy. SS/SM on duty shall ensure that the portion of line between Advanced Starter and 400 Mtrs beyond IBS at their respective ends is clear of obstruction and indication to this effect is available in the panel and shall also ensure any non-isolated shunting at their respective ends suspended and shunting authority issued if any is withdrawn and kept in his custody.

Advise the Station Master at the station in advance, of the train No. and description of such intended train to be dispatched and shall take his assent supported by Private

Number and shall then set and lock the route and take off the Starter and Advanced Starter.

c) IBS SIGNAL TO THE STATION IN ADVANCE:

The Dy. SS/SM on duty shall obtain line clear over lock & Block instruments from the station in advance to dispatch a train pass the IBS signal at the respective ends and shall take off the IBS signal by means of taking of signal No13 on UP direction or signal no. 14 DN direction of PVP.

After the train passes the intermediate Block Stop signal of PVP a buzzer will ring in the panel. On hearing the buzzer/bell the Dy. SS/SM must acknowledge the same by clicking train entering section [TES] muting button to stop the buzzer/bell and then send train entering section report to the cabin master of the station in advance who in turn will turn commutator of the Double line Lock and Block Instrument from the line clear position to Train On Line position and acknowledge train entering section. After dispatch of a train from PVP into the Block section between PVP and intermediate Block Post in case when the intermediate stop signal is not taken 'off' but the buzzer has started ringing, this may be either due to the train passing intermediate Block stop signal at 'ON' position or due to failure of the track circuit in advance of that intermediate Block Signal and shall exchange Private Number with the Cabin Master in advance indicating the occurrence and the number of the train. On getting the information from the Station Master/GMDA/SNM, the Dy. SS/SM on duty at PVP in turn will inform SCR on duty about this.

The procedure must be rigidly followed irrespective of the fact whether line clear for train has been received from station in advance or not and this must be recorded in the Train Register and Dy. SS/SM's diary book of both the Stations/Cabins.

d)(i) Dispatch of trains towards PVP in case of failure of the Down/UP Advanced Starter signal at PVP Station due to failure of "Axle Counter" device or otherwise. If the failure of the Advanced starter of GMDA/PVP due to the failure of axle counting device or the indication lamp (repeated by indication lamp) showing 'Red' light either due to power failure or due to any other causes, the re-setting "Push Button" provided with counter at the Dy. SS/SM's office for resorting the normal function of the signal, should be operated accordingly to the following instruction whenever the Advance starter signal of PVP is found defective by the Station Master and the following procedure shall be adopted.

On receipt of this information, the Dy. SS/SM on duty after ensuring that all trains which had left his Block Station had arrived complete and intact at **GMDA/SNM** station (by exchange Private Number with the Dy. SS/SM **PVP** confirming this), shall press the resetting button of the axle counter. When the resetting is successful, it shall be indicated by a green light in the resetting panel provided in the Dy. SS/SM's office at **PVP**. The use of this resetting button is registered on the counter and the Dy. SS/SM should record this giving the details of the occasion with timings in the counter register kept in the station.

If it is not possible to restore normal working of the counter by use of the resetting button, the ESM-in-charge of the section shall be served with a written memo to attend

the defective signal and rectify the same. The ESM-in-charge of the section on being served with a memo by the Dy.SS/SM, shall attend the failure and rectify the fault. The ESM after ensuring that all S&T gears relating to defective signal have been attended to and are in working order except the axle counter which needs re-setting shall establish communication with Dy. SS/SM concerned and ask him to reset the axle counter by pressing the reset push button. Where after the Dy. SS/SM on duty, after ensuring that all the trains which had left his Block Station had arrived complete and intact at **GMDA/SNM** (by exchanging of P.N with **SS/DY SS GMDA/SNM** confirming this) shall press the resetting button provided in the panel at **PVP** station and resume the normal working.

e) DESPATCH OF TRAINS IN CASE OF FAILURE OF INTERMEDIATE BLOCK STOP SIGNAL:

[a]When a driver finds an intermediate Block Stop signal at 'ON' Position he shall stop his train in rear of the signal and advise the guard of the fact by sounding long continuous whistle and shall then contact the Station Master of the Block Station in rear over the signal post telephone provided for the purpose vide SR.3.75.01[i].

[b]If the Dy.SS/SM of PVP station, on being contacted over Telephone by the driver, finds that the signal is defective, he shall, after obtaining "Line Clear" for the train from the station in advance, authorized the driver on the telephone to pass intermediate Block Signal at "ON" and enter the block section ahead. He shall give Driver the Private Number and identification Number under which he has received "Line Clear" for the train from the station in advance.

The Loco pilot shall then sound one short, one long and one short whistle and, on receipt of Guard's signal shall proceed ahead duly exchanging signals with him.

The station Master on being contacted by the Loco pilot on signal post telephone if he is unable to obtain "Line Clear" for the train due to total interruption of communications, shall call for the Guard's through the Loco pilot and on being contacted by guard, he shall advise the guard of the circumstances and give a Private Number for the train to proceed up to the next block station.

The guard shall prepare a memo in duplicate authorizing the Loco pilot to proceed with the Private Number received from the Station Master. In such case the speed of the train shall be restricted as prescribed in GR 3.75(3).

[c]In such case the Loco pilot shall pass the IB signal at "ON" and proceed cautiously and be prepared to stop short of any obstruction, at a speed not exceeding 15 Kilometers an hour if he has a good view of the line ahead, otherwise at a speed not exceeding 8 kilometers an hour and report the failure to the Station Master at the block station ahead.

While complying with the instructions contained in GR 3.75(3), when the Loco pilot has to pass IB signal at "ON" after waiting for 5 minute at the signal, he shall proceed cautiously preparing to stop short of any obstruction at a speed not exceeding 15KMPH

when view ahead is clear and 8 KMPH when view ahead is not clear due to curve, obstruction, rain, fog or any other cause until he reaches the foot of the next stop signal and even the signal is “OFF” the Driver shall continue to look out for possible obstruction short of the same and will act upon its indication only after he has reached it. Before starting, the Loco pilot shall sound one long whistle which may be repeated as necessary and shall then start his train on receipt of Guard’s signal. Thereafter he shall exchange signals with the Guard.

On reaching the block station ahead the Loco pilot shall report the failure of the signal to the Station Master. If, the telephone is provided at the intermediate Block Stop signal Post is out of order the Loco pilot ck station ahead, the Loco pilot shall report the failure of the signal to the Dy. SS/SM, Following train shall not be allowed to leave **PVP** unless the complete arrival of the receiving train is certified by the SM on duty at **GMDA/PVP** under exchange of Private Numbers.

The station Master of the block station working the intermediate block stop signal on becoming aware that such a signal is defective shall, before dispatching the train, treat the entire section up to the block station immediately ahead of the intermediate block post as one block section and issue a written authority to the Loco pilot to pass the defective intermediate Block Stop Signal at “ON” without stopping at the signal. In accordance with the procedure prescribed by special instruction.

A written authority as mentioned in GR 3.75(4) shall be in Form T/369[3b] in which the Private Number and identification Number obtained from the station in advance in support of the “Line Clear” shall be recorded. Display of “Proceed hand signal at the foot of defective Intermediate Block Stop Signal may be dispensed with.

[d]However, if the DY.SS/SM on the Block station immediately in rear of an intermediate Block Signal is aware that UP/DN intermediate Block Signal is defective shall before Dispatching a train shall verify that all trains which had left his Block Station had arrived complete and intact at **GMDA/SNM** station (by exchanging Private Number with SM- **GMDA/SNM**) shall press the resetting button of Axle counter equipment. Thereafter Loco pilot shall be handed over the authority of T-369[3b] to pass IBS Signal at “ON” position where in, the Private Number and indication number obtained for line clear, shall also be written. The use of this re-setting push button is registered on the counter and DY.SS/SM should record this usage giving details of the occasion with timings in the Counter/register and also train registers.

(e) INDICATION CUM RESETTING PROVISION IN THE PANEL AT PVP:

The Panel is provided for following light indications:

- (i) Two green indications for the track- circuited portion by Axle Counter, which remain normally lit to indicate that the track is clear. These lamps extinguish no

- sooner the train passes the last stop signal and their place two red indications are lit to indicate that the track is occupied.
- (ii) Two red indications for the last stop signal replacement track circuit which remain lit so long this track- circuit is occupied or in under failure condition.
 - (iii) Two red indications ahead of the IBS Signal, which are lit if the train passes the said signal in “ON” Position. These indications continue to glow till such time the lock and block working is resumed through emergence re-setting feature.
 - (iv) Two red indications just ahead of IBS Signal for the IBS signals replacement track circuit. These indications normally remain dark and are lit either during occupation by a train or during failure of this track circuit.
 - (v) Two red indications for the block section for receiving trains. These indications shall normally remain no indications and shall be lit only when the incoming train passes the IBS signal. It remains lit till such time train arrives fully and Block Instrument is normalized.

f) RE SETTING PROVISION IN THE PANEL AT PVP STATION:

For resetting of I.B. Axle counter please refer Para No: 5.2 of Appendix ‘B’ of this SWR

g) SPECIAL INSTRUCTION IN CASE OF A TRAIN PASSING IBH AT ‘ON’ POSITION:

- i] In case train run away indication appears the Dy.SS/SM/Cabin Master receiving Station shall not turn the block instrument handle to line clear position and Dy.SS/SM at sending station shall not take any action to dispatch the third train unless the second train which passed the IB signal in the ‘ON’ position has actually arrived and its complete arrival is verified by the receiving station.
- ii] Every case of a train passing IB signal at ‘ON’ position without strictly following the provision of GR 3.75 should be treated as a breach of block rule by the Loco pilot and action to be taken accordingly.
- iii] When train run away indication appears at the Dispatching Station without any train in the section, the IBS system should be treated as failed and Signal Maintainer should be advised. All the subsequent trains shall be Piloted OUT after duly taking line clear treating entire section as one Block section as per GR 3.75(4).
- iv] Whenever a train after having obtained line clear passes IBS (when not taken off) in “ON” position the train run away indication appears at the Dispatching station and train entering section indication appears at the receiving station, under such circumstances no further train shall be allowed in the section till the said train arrives completely at the receiving station i.e., station in advance, and its complete arrival received at the receiving station i.e. station in rear supported by Private Number treating the entire block section as single section.
- v] If any train passes IB Signal at ‘ON’ position when there is a train in the Section between IBS and the station ahead, the train run away indication will appear at both

receiving and Dispatching station. Under such circumstances the Dy.SS/SM in the receiving station shall not turn the Block instrument to Line Clear position and Dy.SS/SM at sending station shall not take action to dispatch the (3rd) train, unless the 2nd train which passes the IBS in the 'ON' position has actually arrived and its complete arrival is verified by the receiving station.

- vi] Permission button to be pressed for the runaway train by break opening the seal only after verifying that the last vehicle of the runaway train has arrived in -tact and ensured by exchange of private number with the Dy.SS/SM of the sending station. In case of failure of Axle Counter equipment at the sending station, permission button may also be pressed for normalizing the system only after verifying that there is no train in the section and after duly exchanging Private number with the Dy.SS/SM of the sending station.
- vii] Whenever a train run away indication appears when there is a train in the section, no further train should be allowed in the section till resetting is done as per item No.30.3 above.
- viii] Before any re-setting operation is done, the Dispatching station should advise the receiving station giving details of the last train that has entered the section and should ensure by exchanging of private number that the last train has arrived complete at receiving station.

Every Case of re-setting shall be entered in a register in the following proforma.

Date and time	Train No. Last entered the block section	Private No. of station ahead for Complete Arrival of the train Under Col.2	Counter No Before resetting operation completed	Train No. Entering Block section Immediately after the resetting operation	Remarks	Signature of Dy. SS/SM
1	2	3	4	5	6	7

- ix] If resetting is not possible under item as mentioned above, the system should be treated as failed and train will work treating the entire section up to the Block Station immediately ahead of the IBS Post as one block section as per GR 3.75(4).

x] Action to be taken when a train passes Intermediate Block Stop Signal at 'ON'

a) By Dy.SS/SM of Block Station in advance of the Intermediate Block Stop signal:

i] Shall not turn the Block Instrument commutator to “Line Closed” Position Unless the complete arrival of the train which passed IBS at “ON” position is ensured, without any exception even for such a train which leaves the rear station after obtaining line clear and passes IBS at “ON” position, since there is a

chance of leaving a vehicle or vehicles in the Axle Counter area where the function of Axle Counter also fail when IBS is passed at “ON” position.

ii] In case the bottom needle of the SGE type block instrument is in its ‘Line closed’ position, action should be taken to turn the block instrument commutator to ‘TOL’ Position vide BWM 5.16(2)(iv) and must not turn to “Line closed” and then to “Line clear” position unless the train which had passed the “Intermediate Block Stop Signal” in the ‘ON’ position arrives complete and its complete arrival is verified.

b] By the Dy.SS/SM/ASM of Block Station in rear of the intermediate Block Stop Signal must ensure that last stop signal controlling entry of trains into the section between the last stop signal and the intermediate Block Stop Signal is in its ‘ON’ position and shall under no circumstances take ‘OFF’ or attempt to take ‘OFF’ the said last Stop signal even if the Axle counter/Track circuit section from his block station up to and including the adequate distance beyond the Intermediate Block Stop signal shows ‘clear’ unless the train which had passed the intermediate Block Stop signal in the ‘ON’ position arrives complete the block station in advance and its complete arrival is verified, and intimate the Dy.SS/SM/ASM of the block station in advance the number, description and the departure time of the last train Dispatched from his block station under exchange of Private number.

c] By the Dy.SS/SM of both the block stations in rear and in advance of the intermediate Block Stop Signal:

i] After the complete arrival of the last train, according to the information received vide sub-para (b) above, the Dy. SS/SM of the block station in advance shall communicate the same to the Dy. SS/SM of the station in rear supported by a Private Number which shall be acknowledged by the later by issuing Private Number. Thereafter the Dy. SS/SM of the dispatching station and the Dy. SS/SM of the receiving station shall operate the ‘Resetting’ and ‘reset’ panel respectively in conjunction with the Dy. SS/SM of the Block Station in advance shall then take steps or authorized Dy. SS/SM of the receiving station supported by a Private Number to normalize the block instrument.

ii] Record of Private Number exchange and the number shown in the counters shall be maintained by the concerning Dy. SS/SM in the train signal (Cum log) Register/Trine Log Register.

It is to be noted that in terms of GR3.75 whenever intermediate block stop; signal is at 'on' the Loco pilot must stop his train in rear of the signal and contact the Dy.SS/SM of the block Station in rear on the telephone provided on the signal post who will authorize him to pass the signal in 'ON' position supported by Private Number and identification number which were taken for the line clear from the station in advance. If the telephone is not provided or is out of order, the Loco pilot, after waiting for 5minutes shall pass it at "ON" but he must report the failure to the DY SS/SM at the Block Station ahead after following the provision in GR.3.75(3). This would mean that the Loco pilot shall either get an authority on telephone from the station master or must report at the station ahead about the failure of the telephone. If none of those provisions are complied with, it should be taken as breach of Block Rules.

iii] In the event of failure of IBS signal in the "OFF" position or cannot resume to "ON" position immediately after it has been passed by a train, the station master controlling the signal shall take steps to put back the IBS signal to "ON" position and treat IBS signal failed and train shall be dispatched treating entire section between his station and station in advance as one Block section.

2.7 RUNNING OF MOTOR TROLLYS ON IBS ZONE:

i) While allowing motor trolley/4 wheeler tower wagon/material trolley etc., entire section between **PVP-GMDA & PVP-SNM** shall be treated as one block section and shall be issued **T-369 [3B]** for passing IBS at "ON" position.

ii) After the complete arrival of the said Moto Trolley/4 wheeler tower wagon/material trolley etc., at the station ahead, Station Master at adjacent station shall exchange Private Number in token of complete arrival and then shall resume normal working by resetting the Axle Counter as stated in the SWR.

iii) Motor Trolleys shall not be allowed on following line clear.

NOTE: - Backing of train on the portion of line after passing the intermediate Block Stop signal normally shall not be allowed, however, if it becomes inevitable to back, such backing may be done with great caution as mentioned in SR 3.75.04.

2.8 SIGNAL POST TELEPHONE:

A telephone socket (RE Type portable telephone kept with Loco pilots) with a RED Press button at the bottom is provided at the foot of each IB signal and is meant for Loco pilot to contact the DY.SS/SM in rear by pressing the RED button. The Loco pilot of the train encountering the IB signal at 'ON' position shall contact the station in rear to find out the occupancy or otherwise of the block section ahead.

3. NORMAL POWER SUPPLY TO IBS GOOMTY:

Normal power supply to the Signaling and Interlocking installation at the IBS goomty is drawn from the traction power sources (230V-50 HZ, AT1 and AT2) with auto-change over arrangement in IB Goomty through a panel. Whenever any traction power supplies fails, the auto-change over unit will automatically connected to the other available 'AT' supply.

APPENDIX- 'G'

PARVATIPURAM

RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS:

STATION WORKING RULES FOR 25KV AC ELECTRIC TRACTION PARVATIPURAM STATION

1. **GENERAL & SUBSIDIARY RULES:**

- a) The rules applicable to electrified section have been given in chapter-XVII of the General Rules and in the subsidiary Rules made here under for electric traction. The General principles governing operation and maintenance of Traction Overhead Equipment, Electric locomotives, Signal & Telecommunications installations have been given in the A.C. traction manual. These rule books and an extract of the relevant paras of A.C.Traction Manual, shall be kept with the concerned staff shall make themselves thoroughly familiar with the same (GR. 17.01).
- b) Brief reference to important rules required to be followed by Station/ Yard staff in their day-to-day work has been given in this Appendix. These are, however, illustrative and not exhaustive.

2. **GENERAL SAFETY PRECAUTIONS:**

- a) All staff are warned that contact with or very near (within 2 meters, unless protected by a screen as per rules) to live portion of the 25 KV Traction Overhead Equipment is dangerous and shall be strictly avoided.
- b) No work on overhead lines or in the zones within 2 meters of any live equipment shall be carried out unless a regular 'PERMIT TO WORK' has been obtained from the authorized Traction staff and the line has been made dead and earthed as per rules (GR 17.04) and ACTM para No.20600 to 20619 Vol.II Part. I.

3. **SECTIONING DIAGRAM (Station Working Rules Diagram for Electric Traction)**

- a) A sectioning diagram No.VTRE/OHE/RE/PVP/09 indicating schematically the lines, which have been equipped with, for electric traction is exhibited. The diagram also indicates different electrical sections (Elementary Sections) the Controlling Switches (Isolators switches or interrupters), insulated overlaps and section insulators where the overhead equipment is electrically separated. The limits of an electrical section (Sub-Sector or Elementary section) are indicated by the relevant section. A copy of this diagram is also enclosed with these special working rules and will form part of the same.
- b) For all-purpose connected with Train movements and Power Blocks, this diagram is the only authorized document to be referred to the normal position of various switches is indicating on the diagram.

4. **UNWIRED TRACKS:**

No electric locomotive with pantograph raised shall under any circumstances be taken to an unwired section.

5. **OPERATING OF SWITCHES:**

- a) All switching operations shall be carried out in accordance with the instructions of the Traction Power Controller except in respect of switching operations for local blocks, which may be carried out by authorized traction staff, after they have been granted local blocks by the Station Master in accordance with S.R. 17.04.09 and ACTM para No. 20600,20601 of Vol.II, Part.I.
- b) "In case of emergency, authorized and trained station staff may open Isolator switches under specific instructions of the Traction Power Controller (G.R. 17.04 14-B) with exchanging of Private Nos. to perform the operations of the following isolator switches as well as any other isolators within the station limit.

Sl.No.	Isolator No.	Loc. No.	Sl.No.	Isolator No.	Loc. No.
1.	SM - 453	389/17	4.	SM - 456	387/38
2.	SM - 454	389/10	5.	SM - 457	388/12A
3.	SM - 455	388/13	6.	SS - 520	PVP/1004

6. **POSITION OF SWITCH HANDLES (ISOLATORS):**

When a switch is in the closed position, the operating handle of the switch is at the top.

7. **LOCATION OF KEYS OF SWITCHES:**

The keys for the padlocks of various isolator Switches are kept in the ASM's Office in a box with a glass mounted cover (17.04.13). The Station Master shall daily check the keys of switches of the isolators and report any defects or deficiency to the Traction Power Controller.

8. **PROCEDURE AND PRECAUTIONS FOR OPERATING ISOLATORS:**

The procedure for operation of isolator switches have been given in G .R. 17.04.15 and S.R 17.04.14 (b) which must be rigidly observed.

Isolator switches may be opened only after ensuring :-

- A) If the Isolator switch is on the main line then the adjacent interrupters on either end of isolators switch have been opened.
- B) If the Isolator switch is controlling supply to yard lines that, either such Isolator switch, which is controlling the Elementary Section free of raised pantographs of Electric Locomotives or the Interrupters controlling the supply to the yard lines in question is open (GR 17.04.15)

9. **POWER BLOCK:**

- a) The detailed procedure for obtaining power block has been given in G.R. 17.04.02, 17.03.03 & 17.04.04) and ACTM Para 20603,20604,20611,20612 & 20613 which must be rigidly followed except in case of emergency.
- b) The sequence of switching operations for granting and cancelling the Power Block for a particular section, are included in the Annexure. These shall be strictly followed by all staff. Failure to follow the sequence indicated is likely to lead to dangerous consequences. When any Isolator switch is changed from its normal position, for staff to work in overhead equipment, a danger board shall be exhibited on the switch with the caption "DANGER MEN WORKING" by the concerned staff.

10. **PROTECTION AT THE TIME OF POWER BLOCK:**

- a) All sections over which the Power Block has been granted shall be protected against entry of Electric Locomotive with pantograph raised from either end during the period of the Power Block (G.R. 17.04) and ACTM 20620, 20621 to 20627 of Vol.II, Part.I strict enforcement of longitudinal and transverse protection as per the Annexure attached shall be ensured before imposing power block. If there is/are locomotive/s on the section over which the power block to be given, the Loco Pilot of such locomotives shall be given a memo by the Station Master on duty to lower the pantograph and not to raise it until further instructions and acknowledgement shall be obtained. The Loco Pilots shall not be given instructions to raise the pantograph till the power block is cancelled.
- b) Station Master or station staff conducting shunting operation with electric locomotive shall ensure that under no circumstances, any electric locomotive approaches near the traction structure limiting elementary sections over which the power block has been granted. Limits of each electrical section at a station are shown in the Station Sectioning Diagram.

11. **SECTION INSULATORS:**

In order to isolate main and loop lines on different grids in the yard. Crossover/Turn-out connecting main and loop lines of different grids of the yard, are provided with section insulators, So that, when one line/or grid is made electrically dead and there be any fault on the same, the other line/grid is not affected. The speed of the electric locomotives with pantograph raised over such section insulators shall not exceed 50 KMPH subject to other speed restriction which may be in force. When one of the two sections separated by a Section Insulator is dead, the pantograph of the electric locomotive on the live section shall not proceed closer than 30 Ft. (10 Meters) towards the section insulator marking the end of the dead section.

12. **BREAKDOWN OF TRACTION OVERHEAD EQUIPMENT:**

All breakdown or defects noted or reported on the Traction overhead equipment or any other traction equipment including bonding shall immediately be reported to the Traction Power controller (G.R. 17.03.02) and ACTM Para 20605 of Vol.II Part I. Necessary Caution Order should be issued to the Loco Pilot concerned as directed by the Traction Power Controller observing the existing rules regarding issue of caution orders.

13. **REGISTER OF MESSAGES:**

All message relating to faults on the traction Overhead equipment, operation of switches custody of keys of out-door switches and other important communication in connection with the operation and maintenance of Traction Overhead equipment shall be recorded serially in a register by both the sender and the receiver indicating the time at which the message are received or exchanged (G R. 17.04.12) and ACTM Para 20610, Vol II Part I.

14. **MOVEMENT OF DIESEL ENGINES OR TRAINS HAULED BY SUCH ENGINES:**

Goods or passenger trains hauled by other than electric locomotives may be allowed to pass through the dead section subject to the following conditions :-

- a) This has not been prohibited specifically in the power block message.
- b) Other than Electric trains hauled by such engines shall be brought to a stand at the station preceding the station/section at which power block is granted and the Station Master of this station shall satisfy himself by personal inspection that there is no electric locomotive in the train.
- c) He shall also give a Caution Order to the Loco pilot of such engine or train, warning him of the power block ahead and instructing him to watch for hand signals and observe them.
- d) No Station Master shall give line clear or lower signals for a train to run over a section under power block unless he has received an assurance (supported by Private Number) from the Station Master of the preceding station that there is no electric locomotive or Inspection Car with pantograph raised in the train (ACTM 20627, Vol.II, Pt.I).

Note: For purpose of this Rule a Dead Engine dispatched as a vehicle shall not be considered as an Electric locomotives.

15. **ELECTRIC LOCOMOTIVES :**

Provisions included in A.C. traction Manual must be completed with in case of double heading or banking by electric locomotive and precautions indicated therein must be complied with when dispatching locomotive(ACTM 30636, Vol III.).

16. **ESM :**
Any direct contact or close proximity to 25 KV line conductors is dangerous, the station ESM climbing up the Signal post for removing or fixing or cleaning the signal should not carry any long article which may accidentally touch or come in close proximity to live conductors. The ESM shall also be warned against bringing any part or body near live conductors.
17. **CRANES :**
No crane shall be worked on or near Traction Overhead equipment, unless such equipment is first made dead and earthed and an authorized representative of the OHE section is present (S.R. 17.04.17 (a) & (b)).
18. **WORK ON ROOF OF ROLLING STOCK:**
No person shall climb on the top of the Engine or Tenders or on the roofs of carriages, or wagons, when those vehicles are located beneath Overhead equipment except, when a regular 'Permit to work' has been obtained from authorized Traction Staff and the overhead equipment has been made dead and earthed (GR 17.05(02)) and ACTM Para 10402 & 10403 of Vol.I.
19. **BLOCK INSTRUMENT OR ANY OTHER ELECTRICAL SIGNALLING EQUIPMENT:**
The Station Master/Cabin master on duty must always watch for any unusual working in the Block instrument or any other signaling equipment, which may arise due to voltage, induced from traction system. The Block instrument or the signaling Equipment must be suspended whenever there is any signs of unusual working and the nearest signal and Telecom, maintenance Inspector may be contacted to inspect and certify the same. In the event of a break of the OHE, the Station Master Master must immediately check up whether all Block and signaling equipment are working normal before permitting any train movement.
20. **TELECOMMUNICATION CIRCUITS:**
The details of the Telecommunication facilities available on the electrified sections and the use of the same have been given at ACTM Para 10213, 10429 of Vol. I and Para 20703 of Vol. II part I.
21. **ELECTRIC SHOCK:**
The Station Master shall exhibit prominently the instructions issued regarding the treatment to persons suffering from electric shock in the Station/Yard Office and shall ensure that all Class-III staff are familiar with those instructions.
22. **FIRE:**
Regarding fire on or adjacent to any electrical equipment refer G R (6:10) and SR there to..

23. Nothing in these rules amends or supersedes any General or subsidiary rules or instructions included in AC Traction Manual. These working rules shall be read as supplement to the aforesaid Rules Books and also to the existing Station Working Rules of the Station.

24. **AMENDMENTS OR SUPPLEMENTARY CORRECTION SLIPS:**

Any amendment to these Working Rules or any of the Annexure will be notified by a correction slip to the Station Working Rules. The correction slips will be serially numbered and it is the responsibility of SM in charge of a station to bring the contents to the notice of all staff concerned and take their acknowledgement.

25. **CONTINUOUS WATCH BY INSPECTING STAFF:**

The Inspecting staff of Operating, telecommunication and Traction Departments shall make regular checks at all points to which these special working rules are supplied to ensure that the rules are corrected up-to-date and the staff concerned are fully conversant with the rules and abide by them.

NOTE: Whenever the codes 'GR' & 'SR' appear in these special working rules, please refer to the General and Subsidiary Rules for 25 KV AC Electric Traction, chapter- XIX.

OPERATION STATION WORKING ON AC TRACTION AREA

DO(s) and DON'T(s)

A. FOR ALL STAFF

a) DO(s)

1. In case of fire on Electric Traction Equipment of Wires.
 - i. Inform traction Power Controller.
 - ii. Extinguish fire by special extinguishers, if available.
 - iii. Ensure no water jet is used under any circumstances.
2. Anything unusual on Traction Wires or Electric Locomotive inform traction Power Controller or nearest Station Master.
3. In emergency Traction Power Controller can be contacted on emergency telephone system. (Sockets for connecting emergency telephone are provided at intervals of approximately every kilometer and direction to nearest socket is indicated on OHE masts).

b) DON'T(s)

1. Do not approach within a range of 2 meters (approximately 7 ft.) of any traction wires or live equipment.
2. Do not work on or near traction wires or any live equipment unless they have been made dead, earthed and permit-to-work obtained from an authorized traction staff.
3. Do not permit unauthorized persons to operate any equipment even if it be for making it dead.
4. Do not disturb any Earthing, Bonding or Traction Wires.
5. Do not enter any switching station or remote control centre unless specially permitted and accompanied by authorized traction staff.
6. Do not attempt to turn the person in contact with live traction wire either by touching him or with the help of wooden bamboo pole or by grabbing his clothing or with the help of rubber gloves or any other means. Under such conditions, contact the TPC , ensure switching off power supply and remove the person in contact with the live traction wire by using wooden bamboo pole or by grabbing his clothes or with rubber gloves if available only after ensuring from TPC that the power supply has been switched off.
7. Do not forget to give artificial respiration to the victim.

B. FOR RUNNING STAFF:

a) DO(s)

1. Avoid slipping of wheels.
2. Load coal or oil in loose outside the electrified/area only.
3. Keep a safe distance of 2 meters (7 feet) from traction wires while working on the locomotives.

b) DON'T(s)

1. Do not lift or raise your tools towards traction wires (keep the tools in their respective position immediately after use).
2. Do not load coal on the engine tender to a height more than 4 meters above rail level.
3. Do not take electric locomotive with raised pantograph to any unwired line, beyond power block working limit board or near the section insulators at the end of section under power block.
4. Do not climb on the locomotive (of any type) on the engine tender for any purpose, while under traction wire unless power is cut-off and permit to work obtained (for watering, use the water column from the ground with the special device provided for this purpose and open tank over by the special device provided).
5. Do not place a steam locomotive with chimney directly opposite a traction mast or under any insulator or under bridge.
6. Do not allow long articles like fixing rod, shovel or any other thing to protrude above the engine while on electrified tracks.
7. Do not direct any jet or spray towards the traction wires (jets or water, if necessary, may be used horizontally outside the safety zone of 2 meters (7 feet)).

C) FOR OPERATING STAFF

a) DO(s)

1. Ensure all staff is conversant with safety precautions.
3. Report defects in traction wires of any electric locomotive or electric Multiple Unit Promptly to the traction Power controller.
4. Keep sufficient number of button collars and ensure safety understand their use.
5. Ensure fitting of button collars to the points, & signal levers which give access to section under power block.
6. Observe procedures given in station working rules of 25 KV AC Electric Traction while operating isolator switches.
7. Ensure safe custody of isolator switch keys.
8. Ensure the section is protected by traction staff from all directions by banner flag during power block.
9. Suspend working of block and signals if single of unusual working are noticed. Always checkup block instruments at signaling equipment when any breakdown in traction wires occurs.

b) DON'T(s)

1. Do not permit an electric locomotive or multiple units with raised pantograph to approach any section under power block beyond Power Block working Limit Board or near section insulators.
2. Do not permit any crane to work adjacent to live traction wires.
3. Do not permit your staff to approach live traction wires within the danger zone of 2 meters (approximately 7 feet).
4. Do not permit electric locomotive with raised pantograph to enter any unwired section.
5. Do not take off signals for direct reception for any electric engine or train, if there is a power block within the adequate distance of the signal.

LIST OF SWITCHING STATION AND TRACTION SUB-STATION IN THE SECTION VZM-SPRD.

<u>Sl.No.</u>	<u>SWS/TSS</u>	<u>Location</u>
1.	Gotlam/SP	KM.CH: 462/55.50
2.	Gajapatinagaram/SSP	KM.CH: 445/20.50
3.	Komatipalli/TSS	KM.CH: 435/100.00
4.	Bobilli/SP	KM.CH: 415/835.50
5.	Sitanagaram/SSP	KM.CH: 402/365.50
6.	Parvatipuram/TSS	KM.CH: 388/707.00
7.	Gumuda/SSP	KM.CH: 375/854.00
8.	Kuneru/SP	KM.CH: 368/285.50
9.	Ladda/SSP	KM.CH: 350/978.00
10.	Rayagada/TSS	KM.CH: 341/305.00
11.	Singapur Road/SSP	KM.CH: 332/09.50

SWR of PVP
EAST COAST RAILWAY

APPENDIX-G

STATION WORKING RULES FOR 25 KV AC ELECTRIC TRACTION FOR PARVATIPURAM STATION

1. These rules shall be read along with the main working rules and appendices.
2. These rules apply only to Electric Trains or Electric Engines considered as such & indicate the protection required to prevent them from entering a SECTOR, SUB-SECTOR OR ELEMENTARY SECTION over which a Power Block exist.

Sl./ No.	Description of electrified section under P/B	Steps of longitudinal protection to be taken during power block in respect of electric loco hauling Trains or running light or standing.	Transverse protection	Sequence of Switching Operation for granting power block.	Sequence of Switching Operation for restoring OHE power.
Sector:					
1.	Sector between Gotlam/SP-Parvatipuram/TSS on both UP & DN line.	i) Movement of Electric Trains/Locos shall not be permitted into section Sitanagaram - Parvatipuram on both UP & DN line. ii) Line clear shall not be obtained/granted from/to Sitanagaram for Electric Trains/Locos on UP & DN line. iii) All reception and dispatch signals shall be kept at 'ON'.	NIL	i) Ensure BX-289 is in open condition at Parvatipuram/TSS. ii) Ensure BM-268 & BM-269 are in open condition at Gotlam/SP. i) Open CB-119 at Parvatipuram/TSS.	i) Close CB-119 at Parvatipuram/TSS.
Sub-Sector:					
2.	DN sub-sector between section Sitanagaram – Parvatipuram on DN line. Location from Sitanagaram/SSP to Parvatipuram/TSS.	i) Movement of Electric Trains/Locos shall not be permitted into Sitanagaram – Parvatipuram - Gumuda on DN line. ii) Line clear shall not be granted to/obtained from Gumuda Sitanagaram for Electric Trains/Locos on DN line. iii) Ensure that no Electric Trains/Locos is standing with its panto raised condition on Common loop line (L/1), Line No.2 and HA siding at Parvatipuram. iv) DN reception and dispatch signals shall be kept at 'ON'.	Crossover point No. 18 at Sitanagaram end and Point No. 17 at Gumada end shall be kept in normal position only.	i) Ensure SM-457 of Parvatipuram at Loc. No. 388/12A is in open condition. i) Open BM-288 at Parvatipuram/TSS. ii) Open BM-286 at Sitanagaram/SSP.	i) Close BM-288 at Parvatipuram/TSS. ii) Close BM-286 at Sitanagaram/SSP.

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3.	UP sub-sector between section Sitanagaram – Parvatipuram on UP line. Location from Sitanagaram/SSP to Parvatipuram/TSS.	<ul style="list-style-type: none"> i) Movement of Electric Trains/Locos shall not be permitted into Parvatipuram - Sitanagaram on UP line. ii) Line clear shall not be obtained from Sitanagaram for Electric Trains/Locos on UP line. iii) Ensure that no Electric Trains/Locos is standing with its panto raised condition on UP Main line (L/3) and UP loop line (L/4) and UP Main line at Parvatipuram. iv) UP dispatch and reception signals shall be kept at 'ON'. 	Crossover point No. 18 at Sitanagaram end and Point No. 17 at Gumada end shall be kept in normal position only.	<ul style="list-style-type: none"> i) Ensure SM-457 of Parvatipuram at Loc. No. 388/12A is in open condition. ii) Open BM-287 at Parvatipuram/TSS. ii) Open BM-285 at Sitanagaram/SSP. 	<ul style="list-style-type: none"> i) Close BM-287 at Parvatipuram/TSS. ii) Close BM-285 at Sitanagaram/SSP.
ELEMENTARY SECTION					
1.	E/S No. 28806 on DN line between section Sitanagaram – Parvatipuram including Common loop line and HA siding at Parvatipuram. Location from SM-450 of Sitanagaram at Loc. No. 391/24 to SM-454 of Parvatipuram at Loc. No.389/10. (E/S No. X-520 gets automatically blocked).	<ul style="list-style-type: none"> i) Movement of Electric Trains/Locos shall not be permitted into section Sitanagaram-Parvatipuram on DN line including Common loop line and HA siding at Parvatipuram. ii) Line clear shall not be granted to Sitanagaram for Electric Trains/Locos on DN line. iii) Ensure that no Electric Trains/Locos is standing with its panto raised condition on Common loop line and HA siding at Parvatipuram. iv) DN reception signals shall be kept at 'ON'. v) DN dispatch signals for Line No.1 shall be kept at 'ON'. vi) Shunting towards Sitanagaram on DN line and block back is strictly prohibited. 	Crossover point No. 18 at Sitanagaram end Point No. 19 at Gumada end shall be kept in normal position only.	<ul style="list-style-type: none"> i) Open BM-286 at Sitanagaram/SSP. ii) Open BM-288 at Parvatipuram/TSS. iii) Open SM-450 of Sitanagaram at Loc. No. 391/24. iv) Open SM-454 of Parvatipuram at Loc. No.389/10. v) Close BM-286 at Sitanagaram/SSP. vi) Close BM-288 at Parvatipuram/TSS. 	<ul style="list-style-type: none"> i) Close SM-450 of Sitanagaram at Loc. No. 391/24. ii) Close SM-454 of Parvatipuram at Loc. No.389/10.

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2.	E/S No. 28804 on DN Main line at Parvatipuram. Location from SM-454 of Parvatipuram at Loc. No.389/10 to SM-456 of Parvatipuram at Loc. No. 387/38.	i) Movement of Electric Trains/Locos shall not be permitted into DN Main line at Parvatipuram. ii) DN Electric Trains/Locos can be admitted on Common loop line (L/1) from Sitanagaram side. iii) DN reception signals for DN Main line shall be kept at 'ON'.	Crossover point No. 19 and 17 at Gumada end shall be kept in normal position only.	i) Ensure SM-457 of Parvatipuram at Loc. No. 388/12A is in open condition. ii) Open BM-286 at Sitanagaram/SSP. iii) Open BM-288 at Parvatipuram/TSS. iv) Open SM-454 of Parvatipuram at Loc. No.389/10. v) Open SM-456 of Parvatipuram at Loc. No. 387/38. vi) Close BM-286 at Sitanagaram/SSP. vii) Close BM-288 at parvatipuram/TSS.	i) Close SM-454 of Parvatipuram at Loc. No. 389/10. ii) Close SM-456 of Parvatipuram at Loc. No. 387/38.
3.	E/S No. 28802 on DN line between Parvatipuram - Gumada. Location from SM-456 of Parvatipuram at Loc. No. 387/38 to neutral section of PVP/TSS at CH: 387/820.50.	i) Movement of Electric Trains/Locos shall not be permitted into Parvatipuram-Gumada on DN line. ii) DN dispatch signals shall be kept at 'ON'. iii) Shunting of Electric Trains towards Gumada is not permitted beyond advance starter.	Nil	i) Open BM-288 at Parvatipuram/TSS. ii) Open SM-456 of Parvatipuram at Loc. No. 387/38. iii) Close BM-288 at Parvatipuram/TSS.	i) Close SM-456 of Parvatipuram at Loc. No. 387/38.
4.	E/S No. 28705 on UP line between section Parvatipuram - Sitanagaram. Location from SM-449 of Sitanagaram at Loc. No. 391/21 to SM-453 of Parvatipuram at Loc.No. 389/17.	i) Movement of Electric Trains/Locos shall not be permitted into Parvatipuram - Sitanagaram on UP line. ii) Line clear shall not be obtained from Sitanagaram on UP line. iii) UP dispatch signals shall be kept at 'ON'. iv) Shunting on UP line towards Sitanagaram and block forward are not permitted.	Crossover point No. 18 at Sitanagaram end shall be kept in normal position only.	i) Open BM-285 at Sitanagaram/SSP. ii) Open BM-287 at Parvatipuram/TSS. iii) Open SM-449 of Sitanagaram at Loc. No. 391/21. iv) Open SM-453 of Parvatipuram at Loc.No. 389/17. v) Close BM-285 at Sitanagaram/SSP. vi) Close BM-287 at Parvatipuram/TSS.	i) Close SM-449 of Sitanagaram at Loc. No. 391/21. ii) Close SM-453 of Parvatipuram at Loc.No. 389/17.

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5.	E/S No. 28703 on UP Main line and UP Loop line at Parvatipuram. Location from SM-453 of Parvatipuram at Loc. No.389/17 to SM-455 of Parvatipuram at Loc. No. 388/13. (E/S No. 28701 on UP line between Parvatipuram – Gumada also automatically gets blocked)	i) Movement of Electric Trains/Locos shall not be permitted into UP Main line and UP Loop line at Parvatipuram. ii) Electric Trains/Locos can be dispatched towards Sitanagaram from Common Loop line (L/1) on UP line. iii) UP dispatch signals for UP Main line and UP loop line shall be kept at 'ON'.	Crossover point No. 17 at Gumada end shall be at normal position only.	i) Ensure SM-457 of Parvatipuram at Loc. No. 388/12A is in open position. ii) Open BM-285 at Sitanagaram/SSP. iii) Open BM-287 at Parvatipuram/TSS. iv) Open SM-453 of Parvatipuram at Loc. No.389/17. v) Open SM-455 of Parvatipuram at Loc. No. 388/13. vi) Close BM-285 at Sitanagaram/SSP.	i) Close SM-453 of Parvatipuram at Loc. No.389/17. ii) Close SM-455 of Parvatipuram at Loc. No. 388/13. iii) Close BM-287 at Parvatipuram/TSS.
6.	E/S No. 28701 on UP line between Parvatipuram - Gumada. Location from SM-455 of Parvatipuram at Loc. No. 388/13 to neutral section of PVP/TSS at CH: 387/820.50.	i) Movement of Electric Trains/Locos shall not be permitted into Parvatipuram – Gumada on UP line. ii) Shunting of Electric Trains on UP line towards Gumada end is not permitted from any line of the yard.	Crossover point No. 17 at Gumada end shall be at normal position only.	i) Ensure SM-457 of Parvatipuram at Loc. No. 388/12A is in open condition. ii) Open BM-287 at Parvatipuram/TSS. iii) Open SM-455 of Parvatipuram at Loc. No. 388/13. iv) Close BM-287 at Parvatipuram/TSS.	i) Close SM-455 of Parvatipuram at Loc. No. 388/13.
7.	E/S No. X-520 on Hot Axle siding.	i) Movement of Electric Trains/Locos shall not be permitted into Hot Axle siding at Parvatipuram. ii) No Electric Trains/Locos can be admitted/dispatched into/from Hot Axle siding. iii) Ensure that no Electric Loco is standing with its panto raised condition on Hot Axle siding.	Hand point lever of Hot Axle siding shall not be operated.	i) Open SS-520 of Parvatipuram at Loc. No. PVP/1004.	i) Close SS-520 of Parvatipuram at Loc. No.PVP/1004.

NOTE:

- i) For any unusual movement of Electric Locos, the Station Master on duty must refer to the working rule diagram from 25KV AC traction of his station and ensured that there is no chance of energizing the section where power block has been granted.
- ii) Points leading to unwired tracks shall not be used for the movement of Electric Loco with pantograph raised.
- iii) Refer drawing No. VTRE/OHE/RE/PVP/09.

Sr.DOM(M)/WAT

DEE(TrD)/WAT

Dy.CEE/RE/BBS

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Sr.DOM(M)/WAT

DEE(TrD)/WAT

Dy.CEE/RE/BBS